ARCADIS

Appendix A

Well Construction Diagrams, Lithologic Logs, and Geotechnical Data (located on CD on back cover)

ARCADIS

Appendix B

IDW Documentation

Appendix B

IDW Management Summary

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Sample Date	Lab Report Number	Sample ID	Bin/Tank ID Numbers	Waste Manifest Number (s)	Sample Location/Remarks	Analysis Method(s)	IDW Classification	Destination	Date(s) Disposed	Quantity solid (tons) or liquid (gallons)
First Quarter										
2/20/2012	PVB1334	IDW-MW-20 IDW-MW-21	Roll Off #6238, 5718, 6248, 6253	111211, 111212, 111213, 111215	Soil Cuttings, well install MW-20 and MW-21	EPA 314.0, EPA 6010B, EPA 7470A	Non-Hazardous	Northwest Regional Landfill	3/7/2012	28.34 tons
2/15/2012 2/17/2012 2/21/2012	PVB1048, PVB1245, PVB1389	EFF-021512 EFF-021712 EFF-022112	Frac Tank	105562, 105563, 105564, 96023, 96057	Ion-exchange treated water from sampling, purging and well development	EPA 314.0	Non-Hazardous	Liquid Environmental Solutions	2/27/2012 2/29/2012 3/1/2012	19050 gallons
1/19/2012 through 2/3/2012	PVB0277, PVB0114, PVA1928, PVA1773, PVA1690, PVA1545, PVA1489	MW-1 through MW-19, PW-1	Baker Tank	50006	Perchlorate impacted water	EPA 314.0	Non-Hazardous	Liquid Environmental Solutions	2/6/2012	4000 gallons
Second Quarter										
5/9/2012-5/11/2012	PVE0992	MW-1, MW-5, MW-6, MW-13, MW-19, MW-21, PW-1	Baker Tank	100568	Perchlorate impacted water	EPA 314.0	Non-Hazardous	Liquid Environmental Solutions	5/18/2012	3100 gallons
5/11/21012	PVE0992	MW-19, MW-20	2 Totes	200501	Perchlorate impacted water	EPA 314.0	Non-Hazardous	Stericycle	5/18/2012	660 gallons
5/11/2012	PVE0992	MW-19, MW-20	2 Totes	1205017	Perchlorate impacted water	EPA 314.0	Non-Hazardous	Northwest Regional Landfill	5/24/2012	660 gallons
Third Quarter										
8/7/2012-8/10/2012	PVH0982 PVH1562	MW-3, MW-4, MW-7 through MW-18, MW-21, PW-1	Baker Tank	50007	Perchlorate impacted water	EPA 314.0	Non-Hazardous	Liquid Environmental Solutions	8/24/2012	5000 gallons
8/7/2012-8/10/2012	PVH1562	MW-1, MW-2, MW-5, MW-6	ARCADIS water wagon	102239	Perchlorate impacted water	EPA 314.0	Non-Hazardous	Liquid Environmental Solutions	8/24/2012	4000 gallons
8/7/2012-8/10/2012	PVH1562	MW-19, MW-20	2 Totes	204019	Perchlorate impacted water	EPA 314.0	Non-Hazardous	Stericycle	8/24/2012	600 gallons
8/7/2012-8/10/2012	PVH1562	MW-19, MW-20	2 Totes	1208024	Perchlorate impacted water	EPA 314.0	Non-Hazardous	Northwest Regional Landfill	8/30/2012	600 gallons

Northwest Regional Landfill
19401 Deer Valley Road
Surprise, AZ, 85387
Ph: 6235846065

Original
Ticket# 789428

Customer Name MPEnviro MP Environmental
Ticket Date 03/07/2012
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 111211
Destination
PO
Profile 101432AZ (Universal Propulsion Co Inc)
Generator 160-UNIVERSALPROPULSION Universal Propulsion CO

Carrier MP Environmental
Vehicle# 689
Container
Driver
Check#
Billing # 0000086
Gen EPA ID
Grid

Volume

	Time	Scale	Operator	Inbound		
In	03/07/2012 10:33:09	Inbound	smccarty		Gross	47800 lb
Out	03/07/2012 11:22:52	Outbound	smccarty		Tare	36520 lb
					Net	11280 lb
					Tons	5.64

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Non Reg Soil -Tons	100	5.64	Tons				AZ
2	FUEL-Fuel Surcharg	100		%				AZ
3	EVF-P-Standard Env	100		%				AZ
4	ADE-ADEQ Fee	100	5.64	Tons				AZ

Total Tax
Total Ticket

Driver's Signature

403WM

WASTE MANAGEMENT

PLEASE CALL LANDFILL 24 HRS IN ADVANCE WITH SHIPPING NOTICE.

NON - HAZARDOUS WASTE MANIFEST

FOR OFFICE USE ONLY
Customer Acct. No.
Ticket No.

GENERATOR

WM- 111211

Name UPCO
Address 25401 N. Central Ave.
Phoenix, AZ 85085
Phone No.
Generating Location
I.D. No. Central # 7559

PROFILE APPROVAL NO	WASTE DESCRIPTION	QUANTITY	UNITS
UWR 101432 A2	Soil Cuttings	12	T

UNIT
D - DRUM
B - BAG
C - CARTON
T - TONS
Y - YARDS
O - OTHER

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40CFR Part 261: That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

Carl C. Craig Jr. CHP | 3/6/2012 | SIGNATURE
AUTHORIZED AGENT'S NAME (PRINT) | DATE | SIGNATURE

CONTRACTOR

Name
Phone No.
Address

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40CFR Part 261or any applicable state law: That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

AUTHORIZED AGENT'S NAME (PRINT) | DATE | SIGNATURE

TRANSPORTER

Name MPB
Address 3045 S. 51st Ave.
Phoenix AZ 85043
Phone No. 602-278-6233
Driver's Name Jim Burgin
Vehicle's No. 689-3845

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40CFR Part 261or any applicable state law: That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

3/7/12 | DRIVER'S SIGNATURE | 3/7/12 | DRIVER'S SIGNATURE
SHIPMENT DATE | DRIVER'S SIGNATURE | DELIVERY DATE | DRIVER'S SIGNATURE

DISPOSAL FACILITY

- ☐ BUTTERFIELD STATION FACILITY • 40404 South 99th Avenue • Mobile, Arizona 85139 • (602) 256-0630
- ☑ NORTHWEST REGIONAL LANDFILL • 19401 West Deer Valley Road • Surprise, Arizona 85387 • (623) 584-6065
- ☐ PAINTED DESERT LANDFILL • 9001 North Porter Avenue • Joseph City, Arizona 86032 • (928) 288-3605
- ☐ GRAY WOLF LANDFILL • 23355 East Highway 169 • Mile Post 11 • Dewey, Arizona 86327 • (928) 925-6249
- ☐ LONE CACTUS LANDFILL • 21402 North 7th Street • Phoenix, Arizona 85024 • (623) 581-0939
- ☐ IRONWOOD LANDFILL • 12720 East Highway 287 • Florence, Arizona 85232 • (520) 868-8778
- ☐

I hereby certify that the above material has been accepted and that information presented on this document are true and accurate.

3-7-12
NAME (PRINT) | DATE | SIGNATURE

ORIGINAL – WHITE DISPOSAL FACILITY – YELLOW TRANSPORTER – PINK GENERATOR – GOLDENROD

Original

WASTE MANAGEMENT

19401 Deer Valley Road
Surprise, AZ, 85387
Ph: 6235846065

Total Tax
Total Ticket

Ticket# 789493

Customer Name MPEnviro MP Environmental

Carrier MP Environmental

Ticket Date 03/07/2012
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 111212
Destination
PO
Profile 101432AZ (Universal Propulsion Co Inc)
Generator 160-UNIVERSALPROPULSION Universal Propulsion CO

Vehicle# 689
Container
Driver
Check#
Billing # 0000086
Gen EPA ID
Grid

Volume

	Time	Scale	Operator	Inbound		
In	03/07/2012 14:07:54	Inbound	smccarty		Gross	58280 lb
Out	03/07/2012 14:07:54		smccarty		Tare	36220 lb
					Net	22060 lb
					Tons	11.03

Comments

WASTE MANAGEMENT

Product		LD	Quantity	Rate	Tax	Amount	Origin
1	Non Reg Soil -Tons	100	11.03	Tons			AZ
2	FUEL-Fuel Surcharg	100		%			AZ
3	EVF-P-Standard Env	100		%			AZ
4	ADE-ADEQ Fee	100	11.03	Tons			AZ

Total Tax
Total Ticket

Driver's Signature

403WM

WASTE MANAGEMENT

PLEASE CALL LANDFILL 24 HRS IN ADVANCE WITH SHIPPING NOTICE.

NON - HAZARDOUS WASTE MANIFEST

FOR OFFICE USE ONLY
Customer Acct. No.
Ticket No.

GENERATOR

WM- 111212

Name UPCO
Address 25401 N. Central Ave.
Phoenix AZ 85085
Phone No.
Generating Location
I.D. No. Control # 7559

PROFILE APPROVAL NO.	WASTE DESCRIPTION	QUANTITY	UNITS
NWR 104332 AZ	Soil Cuttings	12	T

UNIT
D - DRUM
B - BAG
C - CARTON
T - TONS
Y - YARDS
O - OTHER

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40CFR Part 261: That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

Agent for: Craig Miller — AUTHORIZED AGENT'S NAME (PRINT)
3/6/2012 — DATE
SIGNATURE

CONTRACTOR

Name
Phone No.
Address
I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40CFR Part 261or any applicable state law: That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

AUTHORIZED AGENT'S NAME (PRINT) — DATE — SIGNATURE

TRANSPORTER

Name MPE
Phone No. 602-218-8233
Address 3045 S. 51st Ave.
Phoenix AZ 85043
Driver's Name John Burgin
Vehicle's No. 689-3945

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40CFR Part 261or any applicable state law: That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

3/7/12 — SHIPMENT DATE — DRIVER'S SIGNATURE
3/7/12 — DELIVERY DATE — DRIVER'S SIGNATURE

DISPOSAL FACILITY

- ☐ BUTTERFIELD STATION FACILITY • 40404 South 99th Avenue • Mobile, Arizona 85139 • (602) 256-0630
- ☒ NORTHWEST REGIONAL LANDFILL • 19401 West Deer Valley Road • Surprise, Arizona 85387 • (623) 584-6065
- ☐ PAINTED DESERT LANDFILL • 9001 North Porter Avenue • Joseph City, Arizona 86032 • (928) 288-3605
- ☐ GRAY WOLF LANDFILL • 23355 East Highway 169 • Mile Post 11 • Dewey, Arizona 86327 • (928) 925-6249
- ☐ LONE CACTUS LANDFILL • 21402 North 7th Street • Phoenix, Arizona 85024 • (623) 581-0939
- ☐ IRONWOOD LANDFILL • 12720 East Highway 287 • Florence, Arizona 85232 • (520) 868-8778
- ☐

I hereby certify that the above material has been accepted and that information presented on this document are true and accurate.

NAME (PRINT)
3-7-12 — DATE
SIGNATURE

ORIGINAL – WHITE DISPOSAL FACILITY – YELLOW TRANSPORTER – PINK GENERATOR – GOLDENROD

Northwest Regional Landfill

19401 Deer Valley Road
Surprise, AZ, 85387
Ph: 6235846065

Ticket# 789496

Customer Name	MPEnviro MP Environmental	Carrier	MP Environmental
Ticket Date	03/07/2012	Vehicle#	623
Payment Type	Credit Account	Container	
Manual Ticket#		Driver	
Hauling Ticket#		Check#	
Route		Billing #	0000086
State Waste Code		Gen EPA ID	
Manifest	111215		
Destination		Grid	
PO			
Profile	101432AZ (Universal Propulsion Co Inc)		
Generator	160-UNIVERSALPROPULSION Universal Propulsion CO		

Volume

	Time	Scale	Operator	Inbound		
In	03/07/2012 14:15:27	Inbound	smccarty		Gross	41480 lb
Out	03/07/2012 14:15:42	Inbound	smccarty		Tare	34100 lb*
			* Manual Weight		Net	7380 lb
					Tons	3.69

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Non Reg Soil -Tons	100	3.69	Tons				AZ
2	FUEL-Fuel Surcharg	100		%				AZ
3	EVF-P-Standard Env	100		%				AZ
4	ADE-ADEQ Fee	100	3.69	Tons				AZ

Total Tax
Total Ticket

Driver's Signature

403WM

WASTE MANAGEMENT

PLEASE CALL LANDFILL 24 HRS IN ADVANCE WITH SHIPPING NOTICE.

NON - HAZARDOUS WASTE MANIFEST

FOR OFFICE USE ONLY

Customer Acct. No. _____

Ticket No. _____

GENERATOR

WM- 111215

Name: UPCO

Address: 25401 N. Central Ave. Phoenix, AZ 85085

Phone No. _____

Generating Location _____

I.D. No. Control # 7559

PROFILE APPROVAL NO.	WASTE DESCRIPTION	QUANTITY	UNITS
WR 101432 AZ	Soil cuttings	12	T

UNIT
D - DRUM
B - BAG
C - CARTON
T - TONS
Y - YARDS
O - OTHER

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40CFR Part 261: That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

Agent for: Craig Miller — AUTHORIZED AGENT'S NAME (PRINT)

3/6/2012 — DATE

SIGNATURE

CONTRACTOR

Name _____

Phone No. _____

Address _____

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40CFR Part 261or any applicable state law: That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

AUTHORIZED AGENT'S NAME (PRINT) | DATE | SIGNATURE

TRANSPORTER

Name: MPP

Phone No. 602-278-6233

Address: 3045 S. 51st Ave. Phoenix AZ 85043

Driver's Name _____

Vehicle's No. _____

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40CFR Part 261or any applicable state law: That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

3/7/12 — SHIPMENT DATE

DRIVER'S SIGNATURE

DELIVERY DATE

DRIVER'S SIGNATURE

DISPOSAL FACILITY

- ☐ BUTTERFIELD STATION FACILITY • 40404 South 99th Avenue • Mobile, Arizona 85139 • (602) 256-0630
- ☒ NORTHWEST REGIONAL LANDFILL • 19401 West Deer Valley Road • Surprise, Arizona 85387 • (623) 584-6065
- ☐ PAINTED DESERT LANDFILL • 9001 North Porter Avenue • Joseph City, Arizona 86032 • (928) 288-3605
- ☐ GRAY WOLF LANDFILL • 23355 East Highway 169 • Mile Post 11 • Dewey, Arizona 86327 • (928) 925-6249
- ☐ LONE CACTUS LANDFILL • 21402 North 7th Street • Phoenix, Arizona 85024 • (623) 581-0939
- ☐ IRONWOOD LANDFILL • 12720 East Highway 287 • Florence, Arizona 85232 • (520) 868-8778
- ☐ _____

I hereby certify that the above material has been accepted and that information presented on this document are true and accurate.

NAME (PRINT) | 3-7-12 DATE | SIGNATURE

ORIGINAL – WHITE DISPOSAL FACILITY – YELLOW TRANSPORTER – PINK GENERATOR – GOLDENROD

WASTE MANAGEMENT

Northwest Regional Landfill
13401 Deer Valley Road
Surprise, AZ, 85387
Ph: 6235846065

Original
Ticket# 789429

Customer Name MPEnviro MP Environmental
Ticket Date 03/07/2012
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 111213
Destination
PO
Profile 101432AZ (Universal Propulsion Co Inc)
Generator 160-UNIVERSALPROPULSION Universal Propulsion CO

Carrier MP Environmental
Vehicle# 623
Container
Driver
Check#
Billing # 0000086
Gen EPA ID
Grid

Volume

	Time	Scale	Operator	Inbound		
In	03/07/2012 10:34:27	Inbound	smccarty		Gross	50060 lb
Out	03/07/2012 11:07:57	Outbound	smccarty		Tare	34100 lb
					Net	15960 lb
					Tons	7.98

Comments

WASTE MANAGEMENT

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Non Reg Soil -Tons	100	7.98	Tons				AZ
2	FUEL-Fuel Surcharg	100		%				AZ
3	EVF-P-Standard Env	100		%				AZ
4	ADE-ADEQ Fee	100	7.98	Tons				AZ

Total Tax
Total Ticket

Driver's Signature

403WM

WASTE MANAGEMENT

PLEASE CALL LANDFILL 24 HRS IN ADVANCE WITH SHIPPING NOTICE.

NON - HAZARDOUS WASTE MANIFEST

FOR OFFICE USE ONLY
Customer Acct. No. ____
Ticket No. ____

GENERATOR

WM- 111213

Name: UPPO
Address: 25401 N. Central Ave.
Phoenix, AZ 85085
Phone No. ____
Generating Location ____
I.D. No. Control # 7559

PROFILE APPROVAL NO.	WASTE DESCRIPTION	QUANTITY	UNITS
XWR 10143 AZ	Soil Cuttings	12	T

UNIT
D - DRUM
B - BAG
C - CARTON
T - TONS
Y - YARDS
O - OTHER

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40CFR Part 261: That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

Agent for: Craig L. Miller | 3/6/2012 | [signature]
AUTHORIZED AGENT'S NAME (PRINT) | DATE | SIGNATURE

CONTRACTOR

Name ____ Phone No. ____
Address ____

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40CFR Part 261or any applicable state law: That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation

AUTHORIZED AGENT'S NAME (PRINT) | DATE | SIGNATURE

TRANSPORTER

Name: MPB
Address: 3045 S. 51st Ave.
Phoenix AZ 85043
Phone No. 602-278-6733
Driver's Name ____
Vehicle's No. ____

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40CFR Part 261or any applicable state law: That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation

3/7/12 | [signature]
SHIPMENT DATE | DRIVER'S SIGNATURE | DELIVERY DATE | DRIVER'S SIGNATURE

DISPOSAL FACILITY

- ☐ BUTTERFIELD STATION FACILITY • 40404 South 99th Avenue • Mobile, Arizona 85139 • (602) 256-0630
- ☒ NORTHWEST REGIONAL LANDFILL • 19401 West Deer Valley Road • Surprise, Arizona 85387 • (623) 584-6065
- ☐ PAINTED DESERT LANDFILL • 9001 North Porter Avenue • Joseph City, Arizona 86032 • (928) 288-3605
- ☐ GRAY WOLF LANDFILL • 23355 East Highway 169 • Mile Post 11 • Dewey, Arizona 86327 • (928) 925-6249
- ☐ LONE CACTUS LANDFILL • 21402 North 7th Street • Phoenix, Arizona 85024 • (623) 581-0939
- ☐ IRONWOOD LANDFILL • 12720 East Highway 287 • Florence, Arizona 85232 • (520) 868-8778
- ☐ ____

I hereby certify that the above material has been accepted and that information presented on this document are true and accurate.

NAME (PRINT) | 3-7-12 DATE | [signature] SIGNATURE

ORIGINAL – WHITE DISPOSAL FACILITY – YELLOW TRANSPORTER – PINK GENERATOR – GOLDENROD

liquid ENVIRONMENTAL SOLUTIONS

LIQUID ENVIRONMENTAL SOLUTIONS

NON-HAZARDOUS WASTE MANIFEST

1031349
105582
017747

Profile Number
195699

Generator Name	**Name:** Universal Propulsion **Phone:** ( )	**Generator Address**	**Address:** 25401 Central Ave **City:** Phx **State:** AZ **Zip:**

Check with your state and local regulatory agencies for manifest retention requirements. NOTE: Many regulatory agencies require records to be kept on-site and available to review for up to 3 years.

Waste Type	☐ Grease Trap ☐ Grit Trap ☐ Septic/Chemical Toilet ☒ Non-Industrial ☐ Industrial ☐ Special ☐ Used Cooking Oil ☐ Recyclable Used Oil

I certify that the waste material removed from the above premises does not contain any radioactive, flammable, explosive, toxic or hazardous material ("Excluded Waste"). The term "hazardous material" is defined as any one or more pollutant, toxic substance, hazardous substance, solvent or oil as defined in or pusuant to the Resource Conservation and Recovery Act, the Comprehensive Environmental Response Compensation and Liability Act, the Federal Clean Water Act, or any other federal, state or local environmental law, regulation, ordinance, or rule, whether existing as of the date of this agreement or subsequently enacted. I also acknowledge that the Generator shall be responsible for any costs incurred by the Transporter or Disposal Facility in handling or proper disposal of any hazardous waste and that the Generator expressly agrees to defend, indemnify and hold harmless the Transporter from and against any and all damages, costs, fines and liabilities resulting from or arising out of any such hazardous waste.

Generator Rep. Name (please print)		**Generator Rep. Signature**	

Transporter Name	**Name:** MPE **Phone:** ( )	**Transporter Address**	**Address:** 3045 S 5th Ave **City:** Phx **State:** AZ **Zip:**

Waste Removed (Gallons)	5000	**Date**	**Time**
		2-29-12	

I certify that the information above is accurate, and that only the waste certified for removal by the Generator is contained in the servicing vehicle. I am aware that falsification of this manifest may result in prosecution.

Driver Name (please print)	Dan	**Driver Signature**	

Disposal Facility	Liquid Environmental Solutions of Arizona	**Address**	5159 West Van Buren Street Phoenix, AZ 85043
Waste Received (Gallons)	5000	**Date**	**Time**
		2-29-12	
Facility Rep. Name (please print)	KB	**Facility Rep. Signature**	KB

WHITE - Generator Final Copy YELLOW - Liquid Environmental Solutions Copy GOLDENROD - Transporter Copy PINK - Generator 1st Copy

1031482
105563
017747

LIQUID ENVIRONMENTAL SOLUTIONS

NON-HAZARDOUS WASTE MANIFEST

liquid ENVIRONMENTAL SOLUTIONS

Profile Number
195699

Generator Name	**Name:** Universal Propulsion **Phone:** ( )	**Generator Address**	**Address:** 25401 Central Ave **City:** Phx **State:** AZ **Zip:**

Check with your state and local regulatory agencies for manifest retention requirements. NOTE: Many regulatory agencies require records to be kept on-site and available to review for up to 5 years.

Waste Type	☐ Grease Trap ☐ Grit Trap ☐ Septic/Chemical Toilet ☒ Non-Industrial ☐ Industrial ☐ Special ☐ Used Cooking Oil ☐ Recyclable Used Oil

I certify that the waste material removed from the above premises does not contain any radioactive, flammable, explosive, toxic or hazardous material ("Excluded Waste"). The term "hazardous material" is defined as any one or more pollutant, toxic substance, hazardous substance, solvent or oil as defined in or pusuant to the Resource Conservation and Recovery Act, the Comprehensive Environmental Response Compensation and Liability Act, the Federal Clean Water Act, or any other federal, state or local environmental law, regulation, ordinance, or rule, whether existing as of the date of this agreement or subsequently enacted. I also acknowledge that the Generator shall be responsible for any costs incurred by the Transporter or Disposal Facility in handling or proper disposal of any hazardous waste and that the Generator expressly agrees to defend, indemnify and hold harmless the Transporter from and against any and all damages, costs, fines and liabilities resulting from or arising out of any such hazardous waste.

Generator Rep. Name (please print)		**Generator Rep. Signature**	

Transporter Name	**Name:** MPE **Phone:** ( )	**Transporter Address**	**Address:** 3245 55th Ave **City:** Phx **State:** AZ **Zip:**

Waste Removed (Gallons)	5000	**Date** 2-29-12	**Time**

I certify that the information above is accurate, and that only the waste certified for removal by the Generator is contained in the servicing vehicle. I am aware that falsification of this manifest may result in prosecution.

Driver Name (please print)	Dan	**Driver Signature**	

Disposal Facility	Liquid Environmental Solutions of Arizona	**Address**	5159 West Van Buren Street Phoenix, AZ 85043
Waste Received (Gallons)	5000	**Date** 2/29/12	**Time**
Facility Rep. Name (please print)	Dan	**Facility Rep. Signature**	

WHITE - Generator Final Copy YELLOW - Liquid Environmental Solutions Copy GOLDENROD - Transporter Copy PINK - Generator 1st Copy

1031629

105564

017747

LIQUID ENVIRONMENTAL SOLUTIONS

NON-HAZARDOUS WASTE MANIFEST

liquid ENVIRONMENTAL SOLUTIONS

Profile Number
195899

Generator Name	**Name:** Universal Phoenix **Phone:** ( )	**Generator Address**	**Address:** 25401 Controls **City:** Phx **State:** AZ **Zip:**

Check with your state and local regulatory agencies for manifest retention requirements. NOTE: Many regulatory agencies require records to be kept on-site and available to review for up to 3 years.

Waste Type	☐ Grease Trap ☐ Grit Trap ☐ Septic/Chemical Toilet ☒ Non-Industrial ☐ Industrial ☐ Special ☐ Used Cooking Oil ☐ Recyclable Used Oil

I certify that the waste material removed from the above premises does not contain any radioactive, flammable, explosive, toxic or hazardous material ("Excluded Waste"). The term "hazardous material" is defined as any one or more pollutant, toxic substance, hazardous substance, solvent or oil as defined in or pusuant to the Resource Conservation and Recovery Act, the Comprehensive Environmental Response Compensation and Liability Act, the Federal Clean Water Act, or any other federal, state or local environmental law, regulation, ordinance, or rule, whether existing as of the date of this agreement or subsequently enacted. I also acknowledge that the Generator shall be responsible for any costs incurred by the Transporter or Disposal Facility in handling or proper disposal of any hazardous waste and that the Generator expressly agrees to defend, indemnify and hold harmless the Transporter from and against any and all damages, costs, fines and liabilities resulting from or arising out of any such hazardous waste.

Generator Rep. Name (please print)		**Generator Rep. Signature**	

Transporter Name	**Name:** MPE **Phone:** ( )	**Transporter Address**	**Address:** 3045 S 5th Ave **City:** Phx **State:** AZ **Zip:**

Waste Removed (Gallons)	3500	**Date**	**Time**
		2-29-12	

I certify that the information above is accurate, and that only the waste certified for removal by the Generator is contained in the servicing vehicle. I am aware that falsification of this manifest may result in prosecution.

Driver Name (please print)	Don	**Driver Signature**	

Disposal Facility	Liquid Environmental Solutions of Arizona	**Address**	5159 West Van Buren Street Phoenix, AZ 85043

Waste Received (Gallons)	3500	**Date**	**Time**
		2-29-12	
Facility Rep. Name (please print)	KB	**Facility Rep. Signature**	KB

WHITE - Generator Final Copy YELLOW - Liquid Environmental Solutions Copy GOLDENROD - Transporter Copy PINK - Generator 1st Copy

1032366
96023

LIQUID ENVIRONMENTAL SOLUTIONS

NON-HAZARDOUS WASTE MANIFEST

liquid ENVIRONMENTAL SOLUTIONS

Profile Number
195674

Generator Name	Name: Universal Plumbing Phone: (602) 516 2340	**Generator Address**	Address: 2401 Central Ave City: Phoenix State: AZ Zip: 85027

Check with your state and local regulatory agencies for manifest retention requirements. NOTE: Many regulatory agencies require records to be kept on-site and available to review for up to 3 years.

Waste Type	☐ Grease Trap ☐ Grit Trap ☐ Septic/Chemical Toilet ☑ Non-Industrial ☐ Industrial ☐ Special ☐ Used Cooking Oil ☐ Recyclable Used Oil

I certify that the waste material removed from the above premises does not contain any radioactive, flammable, explosive, toxic or hazardous material ("Excluded Waste"). The term "hazardous material" is defined as any one or more pollutant, toxic substance, hazardous substance, solvent or oil as defined in or pusuant to the Resource Conservation and Recovery Act, the Comprehensive Environmental Response Compensation and Liability Act, the Federal Clean Water Act, or any other federal, state or local environmental law, regulation, ordinance, or rule, whether existing as of the date of this agreement or subsequently enacted. I also acknowledge that the Generator shall be responsible for any costs incurred by the Transporter or Disposal Facility in handling or proper disposal of any hazardous waste and that the Generator expressly agrees to defend, indemnify and hold harmless the Transporter from and against any and all damages, costs, fines and liabilities resulting from or arising out of any such hazardous waste.

Generator Rep. Name (please print)	for APCO	**Generator Rep. Signature**	

Transporter Name	Name: MPE Phone: (602) 276 6223	**Transporter Address**	Address: 2045 S 5th Ave City: Phoenix State: AZ Zip: [illegible]

Waste Removed (Gallons)	550 gls	**Date**	**Time**
		3/1/2012	

I certify that the information above is accurate, and that only the waste certified for removal by the Generator is contained in the servicing vehicle. I am aware that falsification of this manifest may result in prosecution.

Driver Name (please print)	Manuel Medina	**Driver Signature**	

Disposal Facility	Liquid Environmental Solutions of Arizona	**Address**	5159 West Van Buren Street Phoenix, AZ 85043
Waste Received (Gallons)	550	**Date**	**Time**
		3-1-12	
Facility Rep. Name (please print)	KB	**Facility Rep. Signature**	KB

WHITE - Generator Final Copy YELLOW - Liquid Environmental Solutions Copy GOLDENROD - Transporter Copy PINK - Generator 1st Copy

LIQUID ENVIRONMENTAL SOLUTIONS

NON-HAZARDOUS WASTE MANIFEST

96057

Profile Number
195699

Generator Name	**Name:** KAREN MITTELHOLZER **Phone:** (623) 516-3340	**Generator Address**	**Address:** 25401 CENTRAL AVE **City:** Phx **State:** AZ **Zip:** 85027

Check with your state and local regulatory agencies for manifest retention requirements. NOTE: Many regulatory agencies require records to be kept on-site and available to review for up to 3 years.

Waste Type: ☐ Grease Trap ☐ Grit Trap ☐ Septic/Chemical Toilet ☑ Non-Industrial ☐ Industrial ☐ Special ☐ Used Cooking Oil ☐ Recyclable Used Oil

I certify that the waste material removed from the above premises does not contain any radioactive, flammable, explosive, toxic or hazardous material ("Excluded Waste"). The term "hazardous material" is defined as any one or more pollutant, toxic substance, hazardous substance, solvent or oil as defined in or pusuant to the Resource Conservation and Recovery Act, the Comprehensive Environmental Response Compensation and Liability Act, the Federal Clean Water Act, or any other federal, state or local environmental law, regulation, ordinance, or rule, whether existing as of the date of this agreement or subsequently enacted. I also acknowledge that the Generator shall be responsible for any costs incurred by the Transporter or Disposal Facility in handling or proper disposal of any hazardous waste and that the Generator expressly agrees to defend, indemnify and hold harmless the Transporter from and against any and all damages, costs, fines and liabilities resulting from or arising out of any such hazardous waste.

Generator Rep. Name (please print)	UNIVERSAL PROPULSION	**Generator Rep. Signature**	Craig Miller

Transporter Name	**Name:** M.P. ENVIRONMENTAL **Phone:** (602) 278-6233	**Transporter Address**	**Address:** 3045 S 51st AVE **City:** Phx **State:** AZ **Zip:** 85043

Waste Removed (Gallons)	5,100	**Date** 2/27/12	**Time** 1230

I certify that the information above is accurate, and that only the waste certified for removal by the Generator is contained in the servicing vehicle. I am aware that falsification of this manifest may result in prosecution.

Driver Name (please print)	ALEX LALIBERTE	**Driver Signature**	[illegible]

Disposal Facility	Liquid Environmental Solutions of Arizona	**Address**	5159 West Van Buren Street Phoenix, AZ 85043
Waste Received (Gallons)	5000	**Date** 2/27/12	**Time**
Facility Rep. Name (please print)	Dan	**Facility Rep. Signature**	[illegible]

WHITE - Generator Final Copy YELLOW - Liquid Environmental Solutions Copy GOLDENROD - Transporter Copy PINK - Generator 1st Copy

LIQUID ENVIRONMENTAL SOLUTIONS

liquid ENVIRONMENTAL SOLUTIONS

NON-HAZARDOUS WASTE MANIFEST

50006
10166414

Profile Number
195699

Generator Name	**Name:** UPCO **Phone:** (602) 717-2580	**Generator Address**	**Address:** 25401 N. Central Ave. **City:** Phoenix **State:** AZ **Zip:** 8

Check with your state and local regulatory agencies for manifest retention requirements. NOTE: Many regulatory agencies require records to be kept on-site and available to review for up to 3 years.

Waste Type	☐ Grease Trap ☐ Grit Trap ☐ Septic/Chemical Toilet ☒ Non-Industrial ☐ Industrial ☐ Special

I certify that the waste material removed from the above premises does not contain any radioactive, flammable, explosive, toxic or hazardous material ("Excluded Waste"). The term "hazardous material" is defined as any one or more pollutant, toxic substance, hazardous substance, solvent or oil as defined in or pusuant to the Resource Conservation and Recovery Act, the Comprehensive Environmental Response Compensation and Liability Act, the Federal Clean Water Act, or any other federal, state or local environmental law, regulation, ordinance, or rule, whether existing as of the date of this agreement or subsequently enacted. I also acknowledge that the Generator shall be responsible for any costs incurred by the Transporter or Disposal Facility in handling or proper disposal of any hazardous waste and that the Generator expressly agrees to defend, indemnify and hold harmless the Transporter from and against any and all damages, costs, fines and liabilities resulting from or arising out of any such hazardous waste.

Generator Rep. Name (please print)	Craig L. Miller	**Generator Rep. Signature**	[signature]

Transporter Name	**Name:** MPB **Phone:** (602) 278-6233	**Transporter Address**	**Address:** 3045 S 51st Ave. **City:** Phoenix **State:** AZ **Zip:** 85043

Waste Removed (Gallons)	4000	**Date** 2-6-12	**Time** 9:30 AM

I certify that the information above is accurate, and that only the waste certified for removal by the Generator is contained in the servicing vehicle. I am aware that falsification of this manifest may result in prosecution.

Driver Name (please print)	STEVEN R SMITH	**Driver Signature**	[signature]

Disposal Facility	Liquid Environmental Solutions of Arizona	**Address**	5159 West Van Buren Street Phoenix, AZ 85043
Waste Received (Gallons)	4000	**Date** 2/6/12	**Time** 10:49 AM
Facility Rep. Name (please print)	[illegible]	**Facility Rep. Signature**	[signature]

WHITE - Generator Final Copy YELLOW - Liquid Environmental Solutions Copy GOLDENROD - Transporter Copy PINK - Generator 1st Copy

LIQUID ENVIRONMENTAL SOLUTIONS

liquid ENVIRONMENTAL SOLUTIONS

NON-HAZARDOUS WASTE MANIFEST

1083465
100568
017747

Profile Number
195699

Generator Name	Name: Universal Properties Phone: ( )	Generator Address	Address: 25401 Lower Ave City: Phx State: Az Zip:

Check with your state and local regulatory agencies for manifest retention requirements. NOTE: Many regulatory agencies require records to be kept on-site and available to review for up to 3 years.

Waste Type	☐ Grease Trap ☐ Grit Trap ☐ Septic/Chemical Toilet ☒ Non-Industrial ☐ Industrial ☐ Special ☐ Used Cooking Oil ☐ Recyclable Used Oil

I certify that the waste material removed from the above premises does not contain any radioactive, flammable, explosive, toxic or hazardous material ("Excluded Waste"). The term "hazardous material" is defined as any one or more pollutant, toxic substance, hazardous substance, solvent or oil as defined in or pusuant to the Resource Conservation and Recovery Act, the Comprehensive Environmental Response Compensation and Liability Act, the Federal Clean Water Act, or any other federal, state or local environmental law, regulation, ordinance, or rule, whether existing as of the date of this agreement or subsequently enacted. I also acknowledge that the Generator shall be responsible for any costs incurred by the Transporter or Disposal Facility in handling or proper disposal of any hazardous waste and that the Generator expressly agrees to defend, indemnify and hold harmless the Transporter from and against any and all damages, costs, fines and liabilities resulting from or arising out of any such hazardous waste.

Generator Rep. Name (please print)	Agent for Craig Miller	Generator Rep. Signature	

Transporter Name	Name: MPE Phone: ( )	Transporter Address	Address: 3045 55th Ave City: Phx State: Az Zip:

Waste Removed (Gallons)	3100	Date	Time
		5/18/12	

I certify that the information above is accurate, and that only the waste certified for removal by the Generator is contained in the servicing vehicle. I am aware that falsification of this manifest may result in prosecution.

Driver Name (please print)	Don	Driver Signature	

Disposal Facility	Liquid Environmental Solutions of Arizona	Address	5159 West Van Buren Street Phoenix, AZ 85043

Waste Received (Gallons)	3100	Date	Time
		5/18/12	
Facility Rep. Name (please print)	Don	Facility Rep. Signature	

WHITE - Generator Final Copy YELLOW - Liquid Environmental Solutions Copy GOLDENROD - Transporter Copy PINK - Generator 1st Copy

Liquid Environmental Solutions of Arizona
5159 West Van Buren Street Phoenix, AZ 85043 (800) 756-7084 (602) 278-3442 www.liquidenviro.com

NON-HAZARDOUS WASTE MANIFEST

NWR 101610AZ
NWR [redacted]
PROFILE NO. _____

M P Environmental Services, Inc. 200501
[redacted] AZ 3045 S. 51st [redacted]

TO BE COMPLETED BY GENERATOR

NOTE: This form to be in lieu of the Toxic Substance Controls hazardous waste manifest. To be used for NON-HAZARDOUS WASTES only.

Name : Universal Propulsion Company

Mailing Address : 25401 North Central Ave.

City / State / Zip : Phoenix AZ 85085

Phone No : 602-717-2580 Contact : _____

Signature: X Agent for UPC Date: 05 / 18 / 12

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS

Waste Description : Perchlorate impacted Water

Generating Location : 25401 N. Central Ave. Phoenix, AZ 85085

Handling Instructions : _____

Quantity : 2 [ ]BBL [X]GLS [ ]YDS [ ]TONS

CONTAINER TYPE: [ ]TANK TRUCK [ ]DUMP TRUCK [ ]DRUMS [ ]BINS [X]OTHER Totes

DESIGNATED FACILITY :

NAME : Stericycle ADDRESS : 2844 West Broadway Road

CITY/STATE/ZIP: Phoenix AZ 85041 PHONE # : 602 276-7602

TRANSPORTER

MP ENVIRONMENTAL SERVICES, INC.
3045 S. 51st Avenue
Phoenix, AZ 85043
602 / 278-6233

TICKET# _____ TRACT/TRLR# 4987 / _____
Bin No's _____
Signature _____
Date 5/18/2012
P/U DATE: _____ Job # 11843

TSD FACILITY

Name : Stericycle

Address : 2844 West Broadway Road

City/State/Zip : Phoenix AZ 85041

Phone No : 602 276-7602

Disposal Method :
[ ]Landfill Other _____

Time : _____ am pm

Discrepancy : _____

Signature : _____ Date : 05 / 18 / 12

Please print or type in the form provided for use on elite (12-pitch) typewriter.

ERTS Contract #: HM8132010

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	AZR000035840	1	1-800-924-6804	1205017

5. Generator's Name and Mailing Address
STERICYCLE Specialty Waste Solutions-PHX
2844 W Broadway
Phoenix AZ 85041

Generator's Site Address (if different than mailing address)

Generator's Phone: 602.276.7602

6. Transporter 1 Company Name: Stericycle Specialty Waste Solutions.
U.S. EPA ID Number: MNS000110924

7. Transporter 2 Company Name: TRIAD
U.S. EPA ID Number: OKD981588791

8. Designated Facility Name and Site Address
US Ecology (Beatty)
12 miles south of Beatty on Hwy 95
Beatty NV 89003
Facility's Phone: 800-239-3943
U.S. EPA ID Number: NVT330010000

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-RCRA / Non-DOT Liquid ERG N/A APPR. 070137747-1577	2	TP	4000	P	N/A
2.	Non-RCRA / Non-DOT Liquid ERG N/A APPR. 070137747-1577	1	CW	600	P	N/A
3.						
4.						

13. Special Handling Instructions and Additional Information
JOB # OUTPHX-12-05-009
1205017

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Carlos Moreira
Signature: [signature]
Month 5 Day 23 Year 12

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Carlos Moreira
Signature: [signature]
Month 5 Day 23 Year 12

Transporter 2 Printed/Typed Name: DENNIS GETTER
Signature: [signature]
Month 5 Day 23 Year 12

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Cyly Young
Signature: [signature]
Month 5 Day 24 Year 12

GENERATOR — TRANSPORTER — DESIGNATED FACILITY

DESIGNATED FACILITY TO GENERATOR

SC Labels • Printed in the USA 1-800-997-6966
Reorder Part# MANIFEST-C6NHW

LIQUID ENVIRONMENTAL SOLUTIONS

liquid ENVIRONMENTAL SOLUTIONS

NON-HAZARDOUS WASTE MANIFEST

50007

Profile Number
195699

Generator Name	**Name:** UPCO **Phone:** (602) 747-2580	**Generator Address**	**Address:** 25401 North Central **City:** Phoenix **State:** AZ **Zip:** 85085

Check with your state and local regulatory agencies for manifest retention requirements. NOTE: Many regulatory agencies require records to be kept on-site and available to review for up to 3 years.

Waste Type	☐ Grease Trap ☐ Grit Trap ☐ Septic/Chemical Toilet ☐ Non-Industrial ☒ Industrial ☐ Special

I certify that the waste material removed from the above premises does not contain any radioactive, flammable, explosive, toxic or hazardous material ("Excluded Waste"). The term "hazardous material" is defined as any one or more pollutant, toxic substance, hazardous substance, solvent or oil as defined in or pusuant to the Resource Conservation and Recovery Act, the Comprehensive Environmental Response Compensation and Liability Act, the Federal Clean Water Act, or any other federal, state or local environmental law, regulation, ordinance, or rule, whether existing as of the date of this agreement or subsequently enacted. I also acknowledge that the Generator shall be responsible for any costs incurred by the Transporter or Disposal Facility in handling or proper disposal of any hazardous waste and that the Generator expressly agrees to defend, indemnify and hold harmless the Transporter from and against any and all damages, costs, fines and liabilities resulting from or arising out of any such hazardous waste.

Generator Rep. Name (please print)	Agent for UPCO Craig L. Miller	**Generator Rep. Signature**	Craig Miller

Transporter Name	**Name:** MPR **Phone:** (602) 278-6233	**Transporter Address**	**Address:** 3045 S. 51st Ave **City:** Phoenix **State:** AZ **Zip:** 85043

Waste Removed (Gallons)	5,000	**Date**	**Time**
		8/24/2012	0900 AM

I certify that the information above is accurate, and that only the waste certified for removal by the Generator is contained in the servicing vehicle. I am aware that falsification of this manifest may result in prosecution.

Driver Name (please print)	Mike McKenzie	**Driver Signature**	Mike McKenzie

Disposal Facility	Liquid Environmental Solutions of Arizona	**Address**	5159 West Van Buren Street Phoenix, AZ 85043

Waste Received (Gallons)	5,000	**Date**	**Time**
		8/24/12	

Facility Rep. Name (please print)	Don	**Facility Rep. Signature**	

tor Final Copy YELLOW - Liquid Environmental Solutions Copy GOLDENROD - Transporter Copy PINK - Generator 1st Copy

LIQUID ENVIRONMENTAL SOLUTIONS

liquid ENVIRONMENTAL SOLUTIONS

NON-HAZARDOUS WASTE MANIFEST

102239

11/15/20

Profile Number: 5507 195699

Generator Name	Name: UPCO Phone: (602) 717-2580	**Generator Address**	Address: 25401 N/Central City: PHX State: AZ Zip: 85085

Check with your state and local regulatory agencies for manifest retention requirements. NOTE: Many regulatory agencies require records to be kept on site and available for review for up to 3 years.

Waste Type: ☐ Grease Trap ☐ Grit Trap ☐ Septic/Chemical Toilet ☐ Non-Industrial ☑ Industrial ☐ Special ☐ Used Cooking Oil ☐ Recyclable Used Oil

I certify that the waste material removed from the above premises does not contain any radioactive, flammable, explosive, toxic or hazardous material ("Excluded Waste"). The term "hazardous material" is defined as any one or more pollutant, toxic substance, hazardous substance, solvent or oil as defined in or pusuant to the Resource Conservation and Recovery Act, the Comprehensive Environmental Response Compensation and Liability Act, the Federal Clean Water Act, or any other federal, state or local environmental law, regulation, ordinance, or rule, whether existing as of the date of this agreement or subsequently enacted. I also acknowledge that the Generator shall be responsible for any costs incurred by the Transporter or Disposal Facility in handling or proper disposal of any hazardous waste and that the Generator expressly agrees to defend, indemnify and hold harmless the Transporter from and against any and all damages, costs, fines and liabilities resulting from or arising out of any such hazardous waste.

Generator Rep. Name (please print)	AGENT FOR UPCO CRAIG MILLER	**Generator Rep. Signature**	Craig Miller

Transporter Name	Name: MPE Phone: (602) 278-6233	**Transporter Address**	Address: 3045 S51 Ave City: PHX State: AZ Zip: 85043

Waste Removed (Gallons)	4000 GAL	**Date**	**Time**

I certify that the information above is accurate, and that only the waste certified for removal by the Generator is contained in the servicing vehicle. I am aware that falsification of this manifest may result in prosecution.

Driver Name (please print)	Mike McIlvoie	**Driver Signature**	[illegible]

Disposal Facility	Liquid Environmental Solutions of Arizona	**Address**	5159 West Van Buren Street Phoenix, AZ 85043
Waste Received (Gallons)	4000	**Date**	8-24-12
Time			
Facility Rep. Name (please print)	KB	**Facility Rep. Signature**	KB

WHITE - Generator Final Copy YELLOW - Liquid Environmental Solutions Copy GOLDENROD - Transporter Copy PINK - Generator 1st Copy

NON-HAZARDOUS WASTE MANIFEST

204019

PROFILE NO. _____

M P Environmental Services, Inc.
3045 S. 51st Avenue • Phoenix, AZ 85043 • (602) 278-6233

NOTE: This form to be in lieu of the Toxic Substance Controls hazardous waste manifest. To be used for NON-HAZARDOUS WASTES only.

Name : Universal Propulsion Company

Mailing Address : 25401 North Central Ave.

City / State / Zip : Phoenix AZ 85085

Phone No : 602-717-2580 Contact : Craig Miller

Agent for UPCO / Signature: X Craig T. Miller Date: 08 / 24 / 12

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS

Waste Description : Perchlorate Impacted Water

Generating Location : 25401 N. Central Ave. Phoenix, AZ 85085

Handling Instructions :

Quantity : 2 Totes [ ]BBL [X]GLS [ ]YDS [ ]TONS

CONTAINER TYPE: [ ]TANK TRUCK [ ]DUMP TRUCK [ ]DRUMS [ ]BINS [X]OTHER Totes

DESIGNATED FACILITY :

NAME : Stericycle ADDRESS : 2844 West Broadway Road

CITY/STATE/ZIP: Phoenix AZ 85041 PHONE # : 602 276-7602

MP ENVIRONMENTAL SERVICES, INC.
3045 S. 51st Avenue
Phoenix, AZ 85043
602 / 278-6233

TICKET# _____ TRACT/TRLR# _____ / _____
Bin No's _____
Signature: Craig T. Miller
Date 8/24/2012
P/U DATE _____ Job # 12370

Name : Stericycle

Address : 2844 West Broadway Road

City/State/Zip : Phoenix AZ 85041

Disposal Method :
[ ] Landfill Other _____

Phone No : 602 276-7602 Time : _____ am pm

Discrepancy :

Signature : _____ Date : 8 / 24 / 12

ERTS Contract # HM8132010

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	AZR000035840	1	1-800-924-6804	1208024

5. Generator's Name and Mailing Address
STERICYCLE Specialty Waste Solutions-PHX
2844 W Broadway
Phoenix AZ 85041

Generator's Site Address (if different than mailing address)

Generator's Phone 602 276 7602

6. Transporter 1 Company Name: Heritage Environmental Services — U.S. EPA ID Number: IND058484114

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
US Ecology (Beatty)
12 miles south of Beatty on Hwy 95
Beatty NV 89003

Facility's Phone 800-239-3943 — U.S. EPA ID Number: NVT330010000

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1	Non-RCRA / Non-DOT Liquid ERG N/A APPR. 070137747-1577	2	TP	4336	P	N/A
2						
3						
4						

13. Special Handling Instructions and Additional Information
JOB # OUTPHX-12-08-015
1208024

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Carlos Moreira — Signature — Month 8 Day 30 Year 12

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name — Signature — Month Day Year

Transporter 2 Printed/Typed Name — Signature — Month Day Year

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month Day Year

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

Destination Copy - Green in the USA

DESIGNATED FACILITY TO GENERATOR

Courtesy Copy - Manifest Stay Yellow

ARCADIS

Appendix C

Historical Water Level Data

Appendix C

Historical Water Level Data
UPCO and Private Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Well Identification	Date of Measurement	Time of Measurement	Measuring Point Elevation (ft amsl)	Depth to Water from Measuring Point (ft)	Groundwater Elevation (ft amsl)
MW-1	01/06/2004	1000	1557.19	206.64	1350.55
	03/19/2004	1000	1557.27	206.70	1350.57
	04/16/2004	1000	1557.27	206.66	1350.61
	09/07/2004	0830	1557.22	207.79	1349.43
	10/22/2004	1235	1557.22	207.42	1349.80
	11/22/2004	1055	1557.22	207.71	1349.51
	12/8/2004	1000	1557.22	207.80	1349.42
	01/17/2005	0715	1557.22	207.62	1349.60
	02/14/2005	1032	1557.22	207.52	1349.70
	03/15/2005	1205	1557.22	207.36	1349.86
	04/25/2005	0725	1557.22	207.47	1349.75
	05/20/2005	0800	1557.22	207.69	1349.53
	06/27/2005	0730	1557.22	207.82	1349.40
	07/18/2005	0716	1557.22	208.13	1349.09
	08/22/2005	0700	1557.22	208.04	1349.18
	09/22/2005	0804	1557.22	208.03	1349.19
	10/24/2005	0934	1557.22	208.03	1349.19
	12/02/2005	1245	1557.22	207.97	1349.25
	12/22/2005	1509	1557.22	208.15	1349.07
	01/27/2006	1125	1557.22	208.09	1349.13
	02/20/2006	1053	1557.22	208.04	1349.18
	03/20/2006	1525	1557.22	207.98	1349.24
	05/22/2006	0842	1557.22	208.08	1349.14
	8/28/2006	1242	1557.22	208.04	1349.18
	11/13/2006	951	1557.22	208.04	1349.18
	2/12/2007	1215	1557.22	208.08	1349.14
	4/9/2007	1010	1557.22	208.03	1349.19
	7/30/2007	855	1557.22	207.84	1349.38
	10/15/2007	1441	1557.22	208.16	1349.06
	1/14/2008	1153	1557.22	208.37	1348.85
	3/31/2008	1445	1557.22	208.24	1348.98
	4/29/2008	1420	1557.22	208.27	1348.95
	5/27/2008	1300	1557.22	208.37	1348.85
	6/27/2008	755	1557.22	208.53	1348.69
	7/28/2008	1323	1557.22	208.50	1348.72
	8/29/2008	1628	1557.22	208.55	1348.67

Historical Water Level Data
UPCO and Private Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Well Identification	Date of Measurement	Time of Measurement	Measuring Point Elevation (ft amsl)	Depth to Water from Measuring Point (ft)	Groundwater Elevation (ft amsl)
MW-1 (continued)	9/20/2008	1205	1557.22	208.44	1348.78
	10/14/2008	1440	1557.22	208.37	1348.85
	11/21/2008	1411	1557.22	208.36	1348.86
	12/15/2008	1143	1557.22	208.44	1348.78
	1/12/2009	0934	1557.22	208.41	1348.81
	2/16/2009	0915	1557.22	208.47	1348.75
	3/17/2009	1157	1557.22	208.42	1348.80
	4/13/2009	1131	1557.22	208.38	1348.84
	5/20/2009	0740	1557.22	208.71	1348.51
	6/15/2009	0739	1557.22	208.58	1348.64
	7/6/2009	0654	1557.22	208.58	1348.64
	8/13/2009	0619	1557.22	208.68	1348.54
	9/28/2009	0826	1560.43	211.92	1348.51
	10/27/2009	1539	1560.43	211.98	1348.45
	11/25/2009	1108	1560.43	212.29	1348.14
	12/18/2009	1142	1560.43	212.35	1348.08
	1/18/2010	1239	1560.43	212.47	1347.96
	6/8/2010	1225	1560.43	211.75	1348.68
	6/22/2010	1310	1560.43	211.76	1348.67
	2/23/2011	1325	1560.43	211.71	1348.72
	3/22/2011	1125	1560.43	211.73	1348.70
	4/26/2011	0815	1560.43	211.77	1348.66
	5/27/2011	1047	1560.43	211.95	1348.48
	6/30/2011	1245	1560.43	211.79	1348.64
	7/25/2011	1102	1560.43	212.02	1348.41
	9/2/2011	1236	1560.43	211.81	1348.62
	9/27/2011	1508	1560.43	211.82	1348.61
	10/24/2011	1152	1560.43	211.88	1348.55
	11/28/2011	1146	1560.43	211.90	1348.53
	12/27/2011	1112	1560.43	211.92	1348.51
	1/19/2012	1242	1560.43	211.87	1348.56
	2/27/2012	1557	1560.43	211.89	1348.54
	3/27/2012	1040	1560.43	212.03	1348.40
	4/28/2012	1610	1560.43	211.90	1348.53
	5/8/2012	1205	1560.43	212.19	1348.24
	6/29/2012	1112	1560.43	212.02	1348.41

Appendix C

Historical Water Level Data
UPCO and Private Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Well Identification	Date of Measurement	Time of Measurement	Measuring Point Elevation (ft amsl)	Depth to Water from Measuring Point (ft)	Groundwater Elevation (ft amsl)
MW-1 (continued)	7/30/2012	1818	1560.43	212.06	1348.37
	8/19/2012	1700	1560.43	212.02	1348.41
	9/6/2012	1130	1560.43	212.12	1348.31
MW-2	01/06/2004	1000	1567.51	216.90	1350.61
	03/19/2004	1000	1567.67	217.40	1350.27
	04/16/2004	1000	1567.67	217.06	1350.61
	09/07/2004	0815	1567.62	218.06	1349.56
	10/22/2004	1245	1567.62	217.62	1350.00
	11/22/2004	1110	1567.62	218.10	1349.52
	12/8/2004	1000	1567.62	218.15	1349.47
	01/17/2005	0730	1567.62	218.02	1349.60
	02/14/2005	1025	1567.62	217.93	1349.69
	03/15/2005	1210	1567.62	217.83	1349.79
	04/25/2005	0715	1567.62	217.88	1349.74
	05/20/2005	0749	1567.62	218.06	1349.56
	06/27/2005	0725	1567.62	218.20	1349.42
	07/18/2005	0710	1567.62	218.53	1349.09
	08/22/2005	0706	1567.62	218.43	1349.19
	09/22/2005	0755	1567.62	218.44	1349.18
	10/24/2005	0826	1567.62	218.44	1349.18
	12/02/2005	1235	1567.62	218.34	1349.28
	12/22/2005	1503	1567.62	218.48	1349.14
	01/27/2006	1118	1567.62	218.47	1349.15
	02/20/2006	1045	1567.62	218.43	1349.19
	03/20/2006	1505	1567.62	218.33	1349.29
	05/22/2006	0827	1567.62	218.43	1349.19
	8/28/2006	1224	1567.62	218.35	1349.27
	11/13/2006	1005	1567.62	218.38	1349.24
	2/12/2007	1229	1567.62	218.48	1349.14
	4/9/2007	1016	1567.62	218.41	1349.21
	7/30/2007	924	1567.62	218.19	1349.43
	10/15/2007	1457	1567.62	218.45	1349.17
	1/14/2008	1206	1567.62	218.70	1348.92
	3/31/2008	1545	1567.62	218.55	1349.07
	4/29/2008	1527	1567.62	218.54	1349.08
	5/27/2008	1309	1567.62	218.69	1348.93

Appendix C

Historical Water Level Data
UPCO and Private Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Well Identification	Date of Measurement	Time of Measurement	Measuring Point Elevation (ft amsl)	Depth to Water from Measuring Point (ft)	Groundwater Elevation (ft amsl)
MW-2 (continued)	6/27/2008	812	1567.62	218.89	1348.73
	7/28/2008	1333	1567.62	218.81	1348.81
	8/29/2008	1618	1567.62	218.83	1348.79
	9/20/2008	1215	1567.62	218.75	1348.87
	10/14/2008	1449	1567.62	218.69	1348.93
	11/21/2008	1420	1567.62	218.69	1348.93
	12/15/2008	1150	1567.62	218.77	1348.85
	1/12/2009	0941	1567.62	218.81	1348.81
	2/16/2009	0923	1567.62	218.85	1348.77
	3/17/2009	1203	1567.62	218.48	1349.14
	4/13/2009	1136	1567.62	218.73	1348.89
	5/20/2009	0746	1567.62	219.05	1348.57
	6/15/2009	0750	1567.62	218.95	1348.67
	7/6/2009	0701	1567.62	218.95	1348.67
	8/13/2009	0627	1567.62	219.03	1348.59
	9/28/2009	0840	1571.22	222.74	1348.48
	10/27/2009	1543	1571.22	222.71	1348.51
	11/25/2009	1114	1571.22	223.06	1348.16
	12/18/2009	1243	1571.22	223.08	1348.14
	1/18/2010	1249	1571.22	223.25	1347.97
	6/8/2010	1237	1571.22	222.57	1348.65
	6/22/2010	1319	1571.22	222.57	1348.65
	2/23/2011	1330	1571.22	222.53	1348.69
	3/22/2011	1038	1571.22	222.60	1348.62
	4/26/2011	0820	1571.22	222.55	1348.67
	5/27/2011	1112	1571.22	222.56	1348.66
	6/30/2011	1302	1571.22	222.61	1348.61
	7/25/2011	1114	1571.22	222.84	1348.38
	9/2/2011	1359	1571.22	222.61	1348.61
	9/27/2011	1523	1571.22	221.61	1349.61
	10/24/2011	1200	1571.22	222.71	1348.51
	11/28/2011	1200	1571.22	222.71	1348.51
	12/27/2011	1121	1571.22	222.76	1348.46
	1/19/2012	1251	1571.22	222.69	1348.53
	2/27/2012	1608	1571.22	222.73	1348.49
	3/27/2012	1049	1571.22	222.84	1348.38

Historical Water Level Data
UPCO and Private Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Well Identification	Date of Measurement	Time of Measurement	Measuring Point Elevation (ft amsl)	Depth to Water from Measuring Point (ft)	Groundwater Elevation (ft amsl)
MW-2 (continued)	4/28/2012	1645	1571.22	222.72	1348.50
	5/8/2012	1139	1571.22	222.97	1348.25
	6/29/2012	1215	1571.22	222.79	1348.43
	7/30/2012	1905	1571.22	222.82	1348.40
	8/19/2012	1820	1571.22	222.84	1348.38
	9/6/2012	1139	1571.22	222.92	1348.30
MW-3	09/07/2004	0745	1583.59	229.10	1354.49
	10/22/2004	1130	1583.59	227.92	1355.67
	11/22/2004	0940	1583.59	228.91	1354.68
	12/8/2004	1000	1583.59	229.03	1354.56
	01/17/2005	0745	1583.59	229.35	1354.24
	02/14/2005	1056	1583.59	229.73	1353.86
	03/15/2005	1150	1583.59	229.86	1353.73
	04/25/2005	0820	1583.59	229.94	1353.65
	05/20/2005	0826	1583.59	230.21	1353.38
	06/27/2005	0820	1583.59	230.30	1353.29
	07/18/2005	0736	1583.59	230.61	1352.98
	08/22/2005	0812	1583.59	230.63	1352.96
	09/22/2005	0825	1583.59	231.67	1351.92
	10/24/2005	0810	1583.59	230.94	1352.65
	11/30/2005	1240	1583.59	231.12	1352.47
	12/22/2005	1415	1583.59	231.15	1352.44
	01/27/2006	1048	1583.59	231.34	1352.25
	02/20/2006	0935	1583.59	231.47	1352.12
	03/21/2006	0735	1583.59	231.59	1352.00
	05/22/2006	0918	1583.59	231.91	1351.68
	8/28/2006	1004	1583.59	232.24	1351.35
	11/13/2006	1040	1583.59	232.82	1350.77
	2/12/2007	1235	1583.59	232.76	1350.83
	4/9/2007	1019	1583.59	233.11	1350.48
	7/30/2007	1149	1583.59	233.52	1350.07
	10/15/2007	942	1583.59	234.45	1349.14
	1/14/2008	1227	1583.59	234.93	1348.66
	3/31/2008	1331	1583.59	235.42	1348.17
	4/29/2008	1537	1583.59	235.21	1348.38
	5/27/2008	1406	1583.59	235.48	1348.11

Historical Water Level Data
UPCO and Private Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Well Identification	Date of Measurement	Time of Measurement	Measuring Point Elevation (ft amsl)	Depth to Water from Measuring Point (ft)	Groundwater Elevation (ft amsl)
MW-3 (continued)	6/27/2008	1005	1583.59	235.66	1347.93
	7/28/2008	1456	1583.59	235.79	1347.80
	8/29/2008	1316	1583.59	236.07	1347.52
	9/20/2008	1120	1583.59	236.10	1347.49
	10/14/2008	1220	1583.59	236.30	1347.29
	11/21/2008	1130	1583.59	236.45	1347.14
	12/15/2008	1230	1583.59	236.59	1347.00
	1/12/2009	1108	1583.59	236.60	1346.99
	2/16/2009	1425	1583.59	236.86	1346.73
	3/17/2009	1224	1583.59	237.00	1346.59
	4/13/2009	1059	1583.59	237.07	1346.52
	5/20/2009	1117	1583.59	237.24	1346.35
	6/15/2009	1110	1583.59	237.31	1346.28
	7/6/2009	1419	1583.59	237.35	1346.24
	8/12/2009	1125	1583.59	237.47	1346.12
	9/28/2009	1148	1583.59	237.81	1345.78
	10/27/2009	0853	1583.59	237.82	1345.77
	11/25/2009	1008	1583.59	238.13	1345.46
	12/18/2009	1028	1583.59	238.13	1345.46
	1/18/2010	1051	1583.59	238.35	1345.24
	6/8/2010	1111	1583.59	239.06	1344.53
	6/22/2010	1105	1583.59	239.16	1344.43
	2/23/2011	1148	1583.59	240.15	1343.44
	3/22/2011	0911	1583.59	240.46	1343.13
	4/25/2011	1500	1583.59	240.53	1343.06
	5/27/2011	0917	1583.59	240.77	1342.82
	6/30/2011	1015	1583.59	240.81	1342.78
	7/25/2011	0921	1583.59	241.04	1342.55
	9/2/2011	0948	1583.59	241.11	1342.48
	9/27/2011	1406	1583.59	241.15	1342.44
	10/24/2011	1041	1583.59	241.23	1342.36
	11/28/2011	1008	1583.59	241.26	1342.33
	12/27/2011	947	1583.59	241.42	1342.17
	1/19/2012	1105	1583.59	241.48	1342.11
	2/27/2012	1424	1583.59	241.69	1341.90
	3/27/2012	0854	1583.59	241.89	1341.70

Appendix C

Historical Water Level Data
UPCO and Private Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Well Identification	Date of Measurement	Time of Measurement	Measuring Point Elevation (ft amsl)	Depth to Water from Measuring Point (ft)	Groundwater Elevation (ft amsl)
MW-3 (continued)	4/28/2012	1532	1583.59	241.85	1341.74
	5/8/2012	0920	1583.59	242.25	1341.34
	6/29/2012	1015	1583.59	242.24	1341.35
	7/30/2012	1515	1583.59	242.39	1341.20
	8/7/2012	1425	1583.59	242.32	1341.27
	9/6/2012	0944	1583.59	242.58	1341.01
MW-4	09/07/2004	0730	1620.34	269.13	1351.21
	10/22/2004	1100	1620.34	268.92	1351.42
	11/22/2004	0910	1620.34	269.58	1350.76
	12/8/2004	1000	1620.34	269.83	1350.51
	01/17/2005	0800	1620.34	269.84	1350.50
	02/14/2005	1004	1620.34	270.04	1350.30
	03/15/2005	1230	1620.34	270.15	1350.19
	04/25/2005	0645	1620.34	270.12	1350.22
	05/20/2005	0716	1620.34	270.22	1350.12
	06/27/2005	0750	1620.34	270.26	1350.08
	07/18/2005	0645	1620.34	270.56	1349.78
	08/22/2005	0721	1620.34	270.40	1349.94
	09/22/2005	0717	1620.34	270.44	1349.90
	10/24/2005	0847	1620.34	270.78	1349.56
	11/30/2005	1254	1620.34	270.82	1349.52
	12/22/2005	1427	1620.34	270.80	1349.54
	01/27/2006	0950	1620.34	271.05	1349.29
	02/20/2006	0850	1620.34	271.22	1349.12
	03/20/2006	1555	1620.34	271.28	1349.06
	05/22/2006	0857	1620.34	271.43	1348.91
	8/28/2006	1115	1620.34	271.82	1348.52
	11/13/2006	926	1620.34	271.33	1349.01
	2/12/2007	1135	1620.34	271.51	1348.83
	4/9/2007	1048	1620.34	271.66	1348.68
	7/30/2007	940	1620.34	272.63	1347.71
	10/15/2007	1324	1620.34	273.35	1346.99
	1/14/2008	1321	1620.34	273.81	1346.53
	3/31/2008	1316	1620.34	274.00	1346.34
	4/29/2008	1459	1620.34	273.76	1346.58
	5/27/2008	1350	1620.34	274.05	1346.29

Historical Water Level Data
UPCO and Private Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Well Identification	Date of Measurement	Time of Measurement	Measuring Point Elevation (ft amsl)	Depth to Water from Measuring Point (ft)	Groundwater Elevation (ft amsl)
MW-4 (continued)	6/27/2008	928	1620.34	274.18	1346.16
	7/28/2008	1603	1620.34	274.22	1346.12
	8/29/2008	1217	1620.34	274.40	1345.94
	9/20/2008	749	1620.34	274.48	1345.86
	10/14/2008	1246	1620.34	274.68	1345.66
	11/21/2008	940	1620.34	274.70	1345.64
	12/15/2008	1214	1620.34	274.90	1345.44
	1/12/2009	1042	1620.34	274.93	1345.41
	2/16/2009	1457	1620.34	274.78	1345.56
	3/17/2009	1316	1620.34	275.07	1345.27
	4/13/2009	1227	1620.34	275.04	1345.30
	5/20/2009	1225	1620.34	275.19	1345.15
	6/15/2009	1140	1620.34	275.23	1345.11
	7/6/2009	1130	1620.34	275.26	1345.08
	8/12/2009	1246	1620.34	275.39	1344.95
	9/28/2009	1036	1620.34	275.50	1344.84
	10/27/2009	0837	1620.34	275.50	1344.84
	11/25/2009	0749	1620.34	275.86	1344.48
	12/18/2009	1045	1620.34	275.82	1344.52
	1/18/2010	1023	1620.34	275.97	1344.37
	6/8/2010	1323	1620.34	276.21	1344.13
	6/22/2010	1237	1620.34	276.35	1343.99
	2/23/2011	1220	1620.34	276.84	1343.50
	3/22/2011	1015	1620.34	276.97	1343.37
	4/25/2011	1548	1620.34	276.92	1343.42
	5/27/2011	0943	1620.34	276.94	1343.40
	6/30/2011	1045	1620.34	277.11	1343.23
	7/25/2011	0954	1620.34	277.39	1342.95
	9/2/2011	1310	1620.34	277.28	1343.06
	9/27/2011	1427	1620.34	277.29	1343.05
	10/24/2011	1059	1620.34	277.38	1342.96
	11/28/2011	1022	1620.34	277.53	1342.81
	12/27/2011	1002	1620.34	277.59	1342.75
	1/19/2012	1135	1620.34	277.60	1342.74
	2/27/2012	1429	1620.34	277.56	1342.78
	3/27/2012	0906	1620.34	277.91	1342.43

Historical Water Level Data
UPCO and Private Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Well Identification	Date of Measurement	Time of Measurement	Measuring Point Elevation (ft amsl)	Depth to Water from Measuring Point (ft)	Groundwater Elevation (ft amsl)
MW-4 (continued)	4/28/2012	1449	1620.34	277.71	1342.63
	5/8/2012	1044	1620.34	278.13	1342.21
	6/29/2012	1017	1620.34	278.12	1342.22
	7/30/2012	1747	1620.34	278.05	1342.29
	8/7/2012	1528	1620.34	278.03	1342.31
	9/6/2012	0956	1620.34	278.16	1342.18
MW-5	09/07/2004	0845	1590.45	240.17	1350.28
	10/22/2004	1255	1590.45	239.67	1350.78
	11/22/2004	1135	1590.45	240.40	1350.05
	12/8/2004	1000	1590.45	240.49	1349.96
	01/17/2005	0815	1590.45	240.47	1349.98
	02/14/2005	1040	1590.45	240.44	1350.01
	03/15/2005	1220	1590.45	240.36	1350.09
	04/25/2005	0700	1590.45	240.38	1350.07
	05/20/2005	0735	1590.45	240.48	1349.97
	06/27/2005	0800	1590.45	240.58	1349.87
	07/18/2005	0700	1590.45	240.90	1349.55
	08/22/2005	0734	1590.45	240.81	1349.64
	09/22/2005	0730	1590.45	240.81	1349.64
	10/24/2005	0856	1590.45	240.85	1349.60
	11/30/2005	1304	1590.45	240.81	1349.64
	12/22/2005	1455	1590.45	240.90	1349.55
	01/27/2006	1111	1590.45	240.99	1349.46
	02/20/2006	1035	1590.45	240.94	1349.51
	03/20/2006	1540	1590.45	240.92	1349.53
	05/22/2006	0848	1590.45	241.07	1349.38
	8/28/2006	1141	1590.45	240.97	1349.48
	11/13/2006	935	1590.45	241.04	1349.41
	2/12/2007	1151	1590.45	241.09	1349.36
	4/9/2007	1042	1590.45	241.10	1349.35
	7/30/2007	1002	1590.45	240.81	1349.64
	10/15/2007	1427	1590.45	241.12	1349.33
	1/14/2008	1458	1590.45	241.28	1349.17
	3/31/2008	1048	1590.45	241.31	1349.14
	4/29/2008	1342	1590.45	241.28	1349.17
	5/27/2008	1532	1590.45	241.33	1349.12

Appendix C

Historical Water Level Data
UPCO and Private Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Well Identification	Date of Measurement	Time of Measurement	Measuring Point Elevation (ft amsl)	Depth to Water from Measuring Point (ft)	Groundwater Elevation (ft amsl)
MW-5 (continued)	6/27/2008	835	1590.45	241.48	1348.97
	7/28/2008	1646	1590.45	241.44	1349.01
	8/29/2008	1207	1590.45	241.45	1349.00
	9/20/2008	755	1590.45	241.48	1348.97
	10/14/2008	1351	1590.45	241.43	1349.02
	11/21/2008	1328	1590.45	241.45	1349.00
	12/15/2008	1309	1590.45	241.43	1349.02
	1/12/2009	1253	1590.45	241.42	1349.03
	2/16/2009	1540	1590.45	241.45	1349.00
	3/17/2009	1407	1590.45	241.43	1349.02
	4/13/2009	1320	1590.45	241.43	1349.02
	5/20/2009	1315	1590.45	241.53	1348.92
	6/15/2009	1235	1590.45	241.57	1348.88
	7/6/2009	1454	1590.45	241.54	1348.91
	8/12/2009	1334	1590.45	241.58	1348.87
	9/28/2009	0913	1594.08	245.32	1348.76
	10/27/2009	1105	1594.08	245.38	1348.70
	11/25/2009	1054	1594.08	245.54	1348.54
	12/18/2009	1135	1594.08	245.59	1348.49
	1/18/2010	0743	1594.08	245.76	1348.32
	6/8/2010	1255	1594.08	245.39	1348.69
	6/22/2010	1329	1594.08	245.38	1348.70
	2/23/2011	1305	1594.08	245.38	1348.70
	3/22/2011	1055	1594.08	245.37	1348.71
	4/26/2011	0805	1594.08	245.43	1348.65
	5/27/2011	1019	1594.08	245.39	1348.69
	6/30/2011	1137	1594.08	245.41	1348.67
	7/25/2011	1031	1594.08	245.64	1348.44
	9/2/2011	1347	1594.08	245.44	1348.64
	9/27/2011	1455	1594.08	245.45	1348.63
	10/24/2011	1145	1594.08	245.50	1348.58
	11/28/2011	1134	1594.08	245.53	1348.55
	12/27/2011	1103	1594.08	245.56	1348.52
	1/19/2012	1231	1594.08	245.57	1348.51
	2/27/2012	1536	1594.08	245.57	1348.51
	3/27/2012	1023	1594.08	245.62	1348.46

Appendix C

Historical Water Level Data
UPCO and Private Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Well Identification	Date of Measurement	Time of Measurement	Measuring Point Elevation (ft amsl)	Depth to Water from Measuring Point (ft)	Groundwater Elevation (ft amsl)
MW-5 (continued)	4/28/2012	1637	1594.08	245.56	1348.52
	5/8/2012	1112	1594.08	245.86	1348.22
	7/30/2012	1918	1594.08	245.70	1348.38
	8/19/2012	1555	1594.08	245.60	1348.48
	9/6/2012	1113	1594.08	245.70	1348.38
MW-6	09/07/2004	0800	1548.22	162.22	1386.00
	10/22/2004	1224	1548.22	161.27	1386.95
	11/22/2004	1045	1548.22	161.77	1386.45
	12/8/2004	1000	1548.22	161.99	1386.23
	01/17/2005	0830	1548.22	162.32	1385.90
	02/14/2005	1121	1548.22	162.50	1385.72
	03/15/2005	1200	1548.22	160.38	1387.84
	04/25/2005	0735	1548.22	149.74	1398.48
	05/20/2005	0810	1548.22	148.31	1399.91
	06/27/2005	0810	1548.22	148.82	1399.40
	07/18/2005	0725	1548.22	149.61	1398.61
	08/22/2005	0749	1548.22	150.88	1397.34
	09/22/2005	0814	1548.22	151.89	1396.33
	10/24/2005	0903	1548.22	153.11	1395.11
	11/30/2005	1348	1548.22	154.16	1394.06
	12/22/2005	1447	1548.22	154.68	1393.54
	01/27/2006	1101	1548.22	155.56	1392.66
	02/20/2006	1110	1548.22	156.10	1392.12
	03/20/2006	1625	1548.22	156.61	1391.61
	05/22/2006	1011	1548.22	157.80	1390.42
	8/28/2006	1216	1548.22	159.64	1388.58
	11/13/2006	1022	1548.22	161.11	1387.11
	2/12/2007	1300	1548.22	161.95	1386.27
	4/9/2007	1053	1548.22	161.63	1386.59
	7/30/2007	1016	1548.22	162.92	1385.30
	10/15/2007	1413	1548.22	163.95	1384.27
	1/14/2008	1520	1548.22	164.94	1383.28
	3/31/2008	910	1548.22	165.42	1382.80
	4/29/2008	1520	1548.22	164.28	1383.94
	5/27/2008	1540	1548.22	163.05	1385.17
	6/27/2008	850	1548.22	162.08	1386.14

Historical Water Level Data
UPCO and Private Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Well Identification	Date of Measurement	Time of Measurement	Measuring Point Elevation (ft amsl)	Depth to Water from Measuring Point (ft)	Groundwater Elevation (ft amsl)
MW-6 (continued)	7/28/2008	1636	1548.22	161.50	1386.72
	8/29/2008	1037	1548.22	161.30	1386.92
	9/20/2008	905	1548.22	161.33	1386.89
	10/14/2008	1402	1548.22	161.48	1386.74
	11/21/2008	1320	1548.22	161.71	1386.51
	12/15/2008	1253	1548.22	161.89	1386.33
	1/12/2009	1236	1548.22	162.28	1385.94
	2/16/2009	1528	1548.22	162.43	1385.79
	3/17/2009	1357	1548.22	162.81	1385.41
	4/13/2009	1305	1548.22	162.83	1385.39
	5/20/2009	1305	1548.22	162.78	1385.44
	6/15/2009	1222	1548.22	162.57	1385.65
	7/6/2009	1440	1548.22	162.50	1385.72
	8/12/2009	1324	1548.22	162.64	1385.58
	9/28/2009	0925	1551.65	166.25	1385.40
	10/27/2009	1129	1551.65	166.33	1385.32
	11/25/2009	1102	1551.65	167.02	1384.63
	12/18/2009	1120	1551.65	167.10	1384.55
	1/18/2010	1156	1551.65	167.37	1384.28
	6/8/2010	1146	1551.65	162.94	1388.71
	6/22/2010	1216	1551.65	162.17	1389.48
	2/23/2011	1255	1551.65	162.70	1388.95
	3/22/2011	0952	1551.65	163.03	1388.62
	4/26/2011	0811	1551.65	162.62	1389.03
	5/27/2011	1035	1551.65	162.82	1388.83
	6/30/2011	1201	1551.65	162.68	1388.97
	7/25/2011	1044	1551.65	163.13	1388.52
	9/2/2011	1227	1551.65	163.19	1388.46
	9/27/2011	1503	1551.65	163.47	1388.18
	10/24/2011	1138	1551.65	163.80	1387.85
	11/28/2011	1122	1551.65	164.37	1387.28
	12/27/2011	1053	1551.65	164.70	1386.95
	1/19/2012	1220	1551.65	164.88	1386.77
	2/27/2012	1526	1551.65	165.18	1386.47
	3/27/2012	1012	1551.65	165.82	1385.83
	4/28/2012	1555	1551.65	165.94	1385.71

Historical Water Level Data
UPCO and Private Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Well Identification	Date of Measurement	Time of Measurement	Measuring Point Elevation (ft amsl)	Depth to Water from Measuring Point (ft)	Groundwater Elevation (ft amsl)
MW-6 (continued)	5/8/2012	1209	1551.65	166.45	1385.20
	6/29/2012	1040	1551.65	167.00	1384.65
	7/30/2012	1703	1551.65	167.28	1384.37
	8/17/2012	1838	1551.65	167.53	1384.12
	9/6/2012	1102	1551.65	167.92	1383.73
MW-7	10/22/2004	1200	1541.35	157.21	1384.14
	11/22/2004	0950	1541.35	154.14	1387.21
	12/8/2004	1000	1541.35	154.55	1386.80
	01/17/2005	0845	1541.35	155.02	1386.33
	02/14/2005	1111	1541.35	155.20	1386.15
	03/15/2005	1130	1541.35	155.48	1385.87
	04/25/2005	0840	1541.35	155.56	1385.79
	05/20/2005	0852	1541.35	155.56	1385.79
	06/27/2005	0845	1541.35	155.60	1385.75
	07/18/2005	0757	1541.35	155.94	1385.41
	08/22/2005	0838	1541.35	156.09	1385.26
	09/22/2005	0845	1541.35	156.37	1384.98
	10/24/2005	0837	1541.35	157.01	1384.34
	11/30/2005	1225	1541.35	157.41	1383.94
	12/22/2005	1347	1541.35	157.73	1383.62
	01/27/2006	1034	1541.35	158.25	1383.10
	02/20/2006	0955	1541.35	158.58	1382.77
	03/20/2006	1645	1541.35	158.83	1382.52
	05/22/2006	0948	1541.35	159.39	1381.96
	8/28/2006	1027	1541.35	159.54	1381.81
	11/13/2006	1030	1541.35	159.48	1381.87
	2/12/2007	1250	1541.35	159.37	1381.98
	4/9/2007	1055	1541.35	159.30	1382.05
	7/30/2007	1121	1541.35	159.48	1381.87
	10/15/2007	909	1541.35	160.12	1381.23
	1/14/2008	903	1541.35	160.61	1380.74
	3/31/2008	1351	1541.35	160.53	1380.82
	4/29/2008	1254	1541.35	160.46	1380.89
	5/27/2008	1445	1541.35	160.63	1380.72
	6/27/2008	1050	1541.35	160.83	1380.52
	7/28/2008	1402	1541.35	160.92	1380.43

Historical Water Level Data
UPCO and Private Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Well Identification	Date of Measurement	Time of Measurement	Measuring Point Elevation (ft amsl)	Depth to Water from Measuring Point (ft)	Groundwater Elevation (ft amsl)
MW-7 (continued)	8/29/2008	1300	1541.35	160.85	1380.50
	9/20/2008	1145	1541.35	160.98	1380.37
	10/14/2008	1057	1541.35	161.21	1380.14
	11/21/2008	1025	1541.35	161.22	1380.13
	12/15/2008	0823	1541.35	161.19	1380.16
	1/12/2009	0750	1541.35	161.39	1379.96
	2/16/2009	0956	1541.35	161.17	1380.18
	3/17/2009	0839	1541.35	161.42	1379.93
	4/13/2009	0843	1541.35	161.39	1379.96
	5/20/2009	0817	1541.35	161.49	1379.86
	6/15/2009	0826	1541.35	161.57	1379.78
	7/6/2009	0745	1541.35	161.58	1379.77
	8/12/2009	1137	1541.35	161.71	1379.64
	9/28/2009	0947	1541.35	161.71	1379.64
	10/27/2009	0749	1541.35	161.70	1379.65
	11/25/2009	0706	1541.35	162.06	1379.29
	12/18/2009	0828	1541.35	162.07	1379.28
	1/18/2010	0748	1541.35	162.03	1379.32
	6/8/2010	1343	1541.35	162.04	1379.31
	6/22/2010	1124	1541.35	162.16	1379.19
	2/23/2011	0850	1541.35	162.20	1379.15
	3/22/2011	0834	1541.35	162.36	1378.99
	4/25/2011	1327	1541.35	162.25	1379.10
	5/27/2011	0800	1541.35	162.24	1379.11
	6/30/2011	0800	1541.35	162.93	1378.42
	7/25/2011	0720	1541.35	162.66	1378.69
	9/2/2011	1200	1541.35	162.41	1378.94
	9/27/2011	1228	1541.35	162.42	1378.93
	10/24/2011	0843	1541.35	162.50	1378.85
	11/28/2011	0821	1541.35	162.64	1378.71
	12/27/2011	845	1541.35	162.61	1378.74
	1/19/2012	0937	1541.35	162.50	1378.85
	2/27/2012	1316	1541.35	162.27	1379.08
	3/27/2012	0725	1541.35	162.53	1378.82
	4/28/2012	1300	1541.35	162.38	1378.97
	5/8/2012	0722	1541.35	162.68	1378.67

Appendix C

Historical Water Level Data
UPCO and Private Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Well Identification	Date of Measurement	Time of Measurement	Measuring Point Elevation (ft amsl)	Depth to Water from Measuring Point (ft)	Groundwater Elevation (ft amsl)
MW-7 (continued)	6/29/2012	0859	1541.35	162.68	1378.67
	7/30/2012	1604	1541.35	162.61	1378.74
	8/7/2012	0800	1541.35	162.69	1378.66
	9/6/2012	0815	1541.35	162.74	1378.61
MW-8	10/22/2004	1212	1542.18	193.21	1348.97
	11/22/2004	1010	1542.18	192.27	1349.91
	12/8/2004	1000	1542.18	192.29	1349.89
	01/17/2005	0900	1542.18	192.27	1349.91
	02/14/2005	1130	1542.18	192.29	1349.89
	03/15/2005	1140	1542.18	192.27	1349.91
	04/25/2005	0850	1542.18	192.29	1349.89
	05/20/2005	0910	1542.18	192.50	1349.68
	06/27/2005	1015	1542.18	192.57	1349.61
	07/18/2005	0806	1542.18	192.88	1349.30
	08/22/2005	0850	1542.18	192.90	1349.28
	09/22/2005	0855	1542.18	192.84	1349.34
	10/24/2005	0828	1542.18	192.89	1349.29
	11/30/2005	1218	1542.18	192.84	1349.34
	12/22/2005	1354	1542.18	192.91	1349.27
	01/27/2006	1024	1542.18	193.98	1348.20
	02/20/2006	1000	1542.18	192.93	1349.25
	03/20/2006	1658	1542.18	192.83	1349.35
	05/22/2006	0955	1542.18	192.97	1349.21
	8/28/2006	1035	1542.18	192.95	1349.23
	11/13/2006	853	1542.18	192.98	1349.20
	2/12/2007	1125	1542.18	193.01	1349.17
	4/9/2007	1012	1542.18	192.79	1349.39
	7/30/2007	1104	1542.18	192.71	1349.47
	10/15/2007	839	1542.18	193.18	1349.00
	1/14/2008	844	1542.18	193.32	1348.86
	3/31/2008	1400	1542.18	193.17	1349.01
	4/29/2008	1706	1542.18	193.08	1349.10
	5/27/2008	1457	1542.18	193.25	1348.93
	6/27/2008	1029	1542.18	193.39	1348.79
	7/28/2008	1415	1542.18	193.36	1348.82
	8/29/2008	1252	1542.18	193.37	1348.81

Historical Water Level Data
UPCO and Private Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Well Identification	Date of Measurement	Time of Measurement	Measuring Point Elevation (ft amsl)	Depth to Water from Measuring Point (ft)	Groundwater Elevation (ft amsl)
MW-8 (continued)	9/20/2008	1250	1542.18	193.35	1348.83
	10/14/2008	1110	1542.18	193.37	1348.81
	11/21/2008	955	1542.18	193.38	1348.80
	12/15/2008	0811	1542.18	193.35	1348.83
	1/12/2009	0739	1542.18	193.34	1348.84
	2/16/2009	0943	1542.18	193.37	1348.81
	3/17/2009	0827	1542.18	193.38	1348.80
	4/13/2009	0834	1542.18	193.33	1348.85
	5/20/2009	0805	1542.18	193.55	1348.63
	6/15/2009	0815	1542.18	193.51	1348.67
	7/6/2009	0733	1542.18	193.49	1348.69
	8/12/2009	1148	1542.18	193.52	1348.66
	9/28/2009	1000	1542.18	193.70	1348.48
	10/27/2009	0806	1542.18	193.80	1348.38
	11/25/2009	0714	1542.18	193.99	1348.19
	12/18/2009	0839	1542.18	194.08	1348.10
	1/18/2010	0817	1542.18	194.20	1347.98
	6/8/2010	1415	1542.18	193.56	1348.62
	6/22/2010	1203	1542.18	193.62	1348.56
	2/23/2011	0825	1542.18	193.59	1348.59
	3/22/2011	0817	1542.18	193.66	1348.52
	4/25/2011	1313	1542.18	193.60	1348.58
	5/27/2011	0745	1542.18	193.65	1348.53
	6/30/2011	0739	1542.18	193.68	1348.50
	7/25/2011	0700	1542.18	193.85	1348.33
	9/2/2011	1121	1542.18	193.69	1348.49
	9/27/2011	1218	1542.18	193.70	1348.48
	10/24/2011	0827	1542.18	193.76	1348.42
	11/28/2011	0827	1542.18	193.74	1348.44
	12/27/2011	834	1542.18	193.75	1348.43
	1/19/2012	0925	1542.18	193.74	1348.44
	2/27/2012	1307	1542.18	193.73	1348.45
	3/27/2012	0715	1542.18	193.84	1348.34
	4/28/2012	1329	1542.18	193.75	1348.43
	5/8/2012	0701	1542.18	194.07	1348.11
	6/29/2012	0839	1542.18	194.10	1348.08

Historical Water Level Data
UPCO and Private Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Well Identification	Date of Measurement	Time of Measurement	Measuring Point Elevation (ft amsl)	Depth to Water from Measuring Point (ft)	Groundwater Elevation (ft amsl)
MW-8 (continued)	7/30/2012	1639	1542.18	193.81	1348.37
	8/7/2012	1035	1542.18	193.89	1348.29
	9/6/2012	0805	1542.18	194.05	1348.13
MW-9	02/14/2005	1139	1565.6	215.29	1350.31
	03/15/2005	1110	1565.6	215.36	1350.24
	04/25/2005	0955	1565.6	215.34	1350.26
	05/20/2005	0926	1565.6	215.36	1350.24
	06/27/2005	1030	1565.6	215.41	1350.19
	07/18/2005	0819	1565.6	215.68	1349.92
	08/22/2005	0902	1565.6	215.57	1350.03
	09/22/2005	0908	1565.6	215.59	1350.01
	10/24/2005	0818	1565.6	215.72	1349.88
	11/30/2005	1207	1565.6	215.70	1349.90
	12/22/2005	1403	1565.6	215.64	1349.96
	01/27/2006	1014	1565.6	215.83	1349.77
	02/20/2006	1015	1565.6	215.84	1349.76
	03/20/2006	1710	1565.6	215.82	1349.78
	05/22/2006	1002	1565.6	216.03	1349.57
	8/28/2006	1047	1565.6	215.95	1349.65
	11/13/2006	843	1565.6	216.07	1349.53
	2/12/2007	1258	1565.6	216.12	1349.48
	4/9/2007	1051	1565.6	216.19	1349.41
	7/30/2007	1051	1565.6	215.83	1349.77
	10/15/2007	820	1565.6	216.16	1349.44
	1/14/2008	822	1565.6	216.30	1349.30
	3/31/2008	1413	1565.6	216.26	1349.34
	4/29/2008	1716	1565.6	216.15	1349.45
	5/27/2008	1509	1565.6	216.24	1349.36
	6/27/2008	1039	1565.6	216.37	1349.23
	7/28/2008	1429	1565.6	216.34	1349.26
	8/29/2008	1247	1565.6	216.38	1349.22
	9/20/2008	1303	1565.6	216.42	1349.18
	10/14/2008	1120	1565.6	216.46	1349.14
	11/21/2008	1013	1565.6	216.51	1349.09
	12/15/2008	0800	1565.6	216.52	1349.08
	1/12/2009	0730	1565.6	216.53	1349.07

Historical Water Level Data
UPCO and Private Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Well Identification	Date of Measurement	Time of Measurement	Measuring Point Elevation (ft amsl)	Depth to Water from Measuring Point (ft)	Groundwater Elevation (ft amsl)
MW-9 (continued)	2/16/2009	0933	1565.6	216.52	1349.08
	3/17/2009	0819	1565.6	216.56	1349.04
	4/13/2009	0827	1565.6	216.54	1349.06
	5/20/2009	0758	1565.6	216.58	1349.02
	6/15/2009	0806	1565.6	216.60	1349.00
	7/6/2009	0724	1565.6	216.61	1348.99
	8/12/2009	0929	1565.6	216.62	1348.98
	9/28/2009	1010	1565.6	216.68	1348.92
	10/27/2009	0825	1565.6	216.62	1348.98
	11/25/2009	0727	1565.6	216.80	1348.80
	12/18/2009	0900	1565.6	216.85	1348.75
	1/18/2010	0825	1565.6	216.94	1348.66
	6/8/2010	1445	1565.6	216.85	1348.75
	6/22/2010	1151	1565.6	216.92	1348.68
	2/23/2011	0810	1565.6	216.90	1348.70
	3/22/2011	0826	1565.6	216.92	1348.68
	4/25/2011	1300	1565.6	216.86	1348.74
	5/27/2011	0720	1565.6	216.93	1348.67
	6/30/2011	0705	1565.6	216.93	1348.67
	7/25/2011	0630	1565.6	217.11	1348.49
	9/2/2011	1102	1565.6	216.92	1348.68
	9/27/2011	1205	1565.6	216.94	1348.66
	10/24/2011	0812	1565.6	216.99	1348.61
	11/28/2011	0750	1565.6	216.95	1348.65
	12/27/2011	820	1565.6	217.00	1348.60
	1/19/2012	0905	1565.6	216.98	1348.62
	2/27/2012	1251	1565.6	216.89	1348.71
	3/27/2012	0655	1565.6	217.04	1348.56
	4/28/2012	1341	1565.6	216.93	1348.67
	5/8/2012	0710	1565.6	217.29	1348.31
	6/29/2012	0830	1565.6	217.06	1348.54
	7/30/2012	1618	1565.6	216.99	1348.61
	8/9/2012	1225	1565.6	217.03	1348.57
	9/6/2012	0745	1565.6	217.19	1348.41
MW-10	02/14/2005	1106	1536.11	149.92	1386.19
	03/15/2005	1120	1536.11	149.71	1386.40

Appendix C

Historical Water Level Data
UPCO and Private Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Well Identification	Date of Measurement	Time of Measurement	Measuring Point Elevation (ft amsl)	Depth to Water from Measuring Point (ft)	Groundwater Elevation (ft amsl)
MW-10 (continued)	04/25/2005	0830	1536.11	149.56	1386.55
	05/20/2005	0842	1536.11	149.33	1386.78
	06/27/2005	0835	1536.11	149.04	1387.07
	07/18/2005	0748	1536.11	149.08	1387.03
	08/22/2005	0828	1536.11	149.02	1387.09
	09/22/2005	0836	1536.11	148.88	1387.23
	10/24/2005	0755	1536.11	149.20	1386.91
	11/30/2005	1232	1536.11	149.27	1386.84
	12/22/2005	1341	1536.11	149.33	1386.78
	01/27/2006	1039	1536.11	149.48	1386.63
	02/20/2006	0945	1536.11	149.56	1386.55
	03/20/2006	1635	1536.11	149.54	1386.57
	05/22/2006	0942	1536.11	149.66	1386.45
	8/28/2006	1015	1536.11	150.05	1386.06
	11/13/2006	1050	1536.11	150.45	1385.66
	2/12/2007	1307	1536.11	150.63	1385.48
	4/9/2007	1032	1536.11	150.75	1385.36
	7/30/2007	1134	1536.11	150.88	1385.23
	10/15/2007	924	1536.11	151.45	1384.66
	1/14/2008	919	1536.11	151.93	1384.18
	3/31/2008	1342	1536.11	152.04	1384.07
	4/29/2008	1234	1536.11	151.98	1384.13
	5/27/2008	1438	1536.11	152.20	1383.91
	6/27/2008	950	1536.11	152.37	1383.74
	7/28/2008	1440	1536.11	152.48	1383.63
	8/29/2008	1305	1536.11	152.41	1383.70
	9/20/2008	1130	1536.11	152.58	1383.53
	10/14/2008	1049	1536.11	152.83	1383.28
	11/21/2008	1034	1536.11	152.88	1383.23
	12/15/2008	0831	1536.11	152.87	1383.24
	1/12/2009	0805	1536.11	153.14	1382.97
	2/16/2009	1003	1536.11	152.95	1383.16
	3/17/2009	0847	1536.11	153.23	1382.88
	4/13/2009	0851	1536.11	153.24	1382.87
	5/20/2009	0824	1536.11	153.28	1382.83
	6/15/2009	0835	1536.11	153.35	1382.76

Appendix C

Historical Water Level Data
UPCO and Private Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Well Identification	Date of Measurement	Time of Measurement	Measuring Point Elevation (ft amsl)	Depth to Water from Measuring Point (ft)	Groundwater Elevation (ft amsl)
MW-10 (continued)	7/6/2009	0754	1536.11	153.42	1382.69
	8/12/2009	0940	1536.11	153.61	1382.50
	9/28/2009	1020	1536.11	153.62	1382.49
	10/27/2009	0816	1536.11	153.64	1382.47
	11/25/2009	0650	1536.11	153.98	1382.13
	12/18/2009	0908	1536.11	154.00	1382.11
	1/18/2010	0836	1536.11	154.02	1382.09
	6/8/2010	1135	1536.11	154.47	1381.64
	6/22/2010	1115	1536.11	154.54	1381.57
	2/23/2011	0900	1536.11	154.90	1381.21
	3/22/2011	0845	1536.11	154.95	1381.16
	4/25/2011	1337	1536.11	154.93	1381.18
	5/27/2011	0810	1536.11	154.93	1381.18
	6/30/2011	0821	1536.11	155.00	1381.11
	7/25/2011	0740	1536.11	155.40	1380.71
	9/2/2011	1215	1536.11	155.12	1380.99
	9/27/2011	1238	1536.11	155.22	1380.89
	10/24/2011	0856	1536.11	155.31	1380.80
	11/28/2011	0837	1536.11	155.51	1380.60
	12/27/2011	853	1536.11	155.57	1380.54
	1/19/2012	0948	1536.11	155.50	1380.61
	2/27/2012	1326	1536.11	155.33	1380.78
	3/27/2012	0735	1536.11	155.58	1380.53
	4/28/2012	1245	1536.11	155.53	1380.58
	5/8/2012	0729	1536.11	155.79	1380.32
	6/29/2012	0915	1536.11	155.90	1380.21
	7/30/2012	1538	1536.11	155.92	1380.19
	8/7/2012	1300	1536.11	155.90	1380.21
	9/6/2012	0825	1536.11	155.99	1380.12
MW-11	12/22/2005	1517	1603.35	253.68	1349.67
	01/27/2006	0959	1603.35	253.76	1349.59
	02/20/2006	1030	1603.35	253.71	1349.64
	03/20/2006	1610	1603.35	253.71	1349.64
	05/22/2006	0906	1603.35	253.83	1349.52
	8/28/2006	1130	1603.35	253.78	1349.57
	11/13/2006	943	1603.35	253.80	1349.55

Historical Water Level Data
UPCO and Private Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Well Identification	Date of Measurement	Time of Measurement	Measuring Point Elevation (ft amsl)	Depth to Water from Measuring Point (ft)	Groundwater Elevation (ft amsl)
MW-11 (continued)	2/12/2007	1209	1603.35	253.86	1349.49
	4/9/2007	1036	1603.35	253.87	1349.48
	7/30/2007	952	1603.35	253.51	1349.84
	10/15/2007	1358	1603.35	253.90	1349.45
	1/14/2008	1421	1603.35	254.07	1349.28
	4/29/2008	1354	1603.35	254.13	1349.22
	5/27/2008	1521	1603.35	254.12	1349.23
	6/27/2008	820	1603.35	254.20	1349.15
	7/28/2008	1617	1603.35	254.26	1349.09
	8/29/2008	1228	1603.35	254.28	1349.07
	9/20/2008	830	1603.35	254.25	1349.10
	10/14/2008	1341	1603.35	254.23	1349.12
	11/21/2008	1300	1603.35	254.23	1349.12
	12/15/2008	1302	1603.35	254.20	1349.15
	1/12/2009	1218	1603.35	254.22	1349.13
	2/16/2009	1520	1603.35	254.20	1349.15
	3/17/2009	1328	1603.35	254.25	1349.10
	4/13/2009	1243	1603.35	254.24	1349.11
	5/20/2009	1240	1603.35	254.32	1349.03
	6/15/2009	1203	1603.35	254.35	1349.00
	7/6/2009	1212	1603.35	254.35	1349.00
	8/12/2009	1255	1603.35	254.38	1348.97
	9/28/2009	1101	1603.35	254.52	1348.83
	10/27/2009	1049	1603.35	254.61	1348.74
	11/25/2009	1027	1603.35	254.73	1348.62
	12/18/2009	1059	1603.35	254.80	1348.55
	1/18/2010	1125	1603.35	254.92	1348.43
	6/8/2010	1244	1606.14	257.63	1348.51
	6/22/2010	1248	1606.14	257.62	1348.52
	2/23/2011	1230	1606.14	257.60	1348.54
	3/22/2011	1025	1606.14	257.60	1348.54
	4/25/2011	1601	1606.14	257.58	1348.56
	5/27/2011	0952	1606.14	257.61	1348.53
	6/30/2011	1059	1606.14	257.64	1348.50
	7/25/2011	1008	1606.14	257.88	1348.26
	9/2/2011	1259	1606.14	257.65	1348.49

Appendix C

Historical Water Level Data
UPCO and Private Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Well Identification	Date of Measurement	Time of Measurement	Measuring Point Elevation (ft amsl)	Depth to Water from Measuring Point (ft)	Groundwater Elevation (ft amsl)
MW-11 (continued)	9/27/2011	1437	1606.14	257.68	1348.46
	10/24/2011	1107	1606.14	257.72	1348.42
	11/28/2011	1051	1606.14	257.73	1348.41
	12/27/2011	1023	1606.14	257.78	1348.36
	1/19/2012	1156	1606.14	257.74	1348.40
	2/27/2012	1446	1606.14	257.79	1348.35
	3/27/2012	0927	1606.14	257.82	1348.32
	4/28/2012	1624	1606.14	257.77	1348.37
	5/8/2012	1125	1606.14	258.08	1348.06
	6/29/2012	1143	1606.14	257.84	1348.30
	7/30/2012	1801	1606.14	257.94	1348.20
	8/13/2012	1530	1606.14	257.86	1348.28
	9/6/2012	1017	1606.14	257.91	1348.23
MW-12	12/22/2005	1440	1557.46	209.16	1348.30
	01/27/2006	1057	1557.46	209.20	1348.26
	02/20/2006	1100	1557.46	209.11	1348.35
	03/20/2006	1515	1557.46	209.09	1348.37
	05/22/2006	0836	1557.46	209.17	1348.29
	8/28/2006	1235	1557.46	209.12	1348.34
	11/13/2006	956	1557.46	209.14	1348.32
	2/12/2007	1225	1557.46	209.23	1348.23
	4/9/2007	1110	1557.46	209.16	1348.30
	7/30/2007	905	1557.46	208.88	1348.58
	10/15/2007	1345	1557.46	209.23	1348.23
	1/14/2008	1143	1557.46	209.46	1348.00
	3/31/2008	1428	1557.46	209.31	1348.15
	4/29/2008	1440	1557.46	209.31	1348.15
	5/27/2008	1255	1557.46	209.42	1348.04
	6/27/2008	800	1557.46	209.63	1347.83
	7/28/2008	1344	1557.46	209.58	1347.88
	8/29/2008	1636	1557.46	209.58	1347.88
	9/20/2008	1200	1557.46	209.50	1347.96
	10/14/2008	1433	1557.46	209.40	1348.06
	11/21/2008	1400	1557.46	209.41	1348.05
	12/15/2008	1138	1557.46	209.50	1347.96
	1/12/2009	0930	1557.46	209.46	1348.00

Appendix C

Historical Water Level Data
UPCO and Private Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Well Identification	Date of Measurement	Time of Measurement	Measuring Point Elevation (ft amsl)	Depth to Water from Measuring Point (ft)	Groundwater Elevation (ft amsl)
MW-12 (continued)	2/16/2009	0909	1557.46	209.52	1347.94
	3/17/2009	1152	1557.46	209.48	1347.98
	4/13/2009	1128	1557.46	209.45	1348.01
	5/20/2009	0736	1557.46	209.79	1347.67
	6/15/2009	0737	1557.46	209.64	1347.82
	7/6/2009	0645	1557.46	209.66	1347.80
	8/13/2009	0615	1557.46	209.75	1347.71
	9/28/2009	0816	1560.91	213.59	1347.32
	10/27/2009	1532	1560.91	213.61	1347.30
	11/25/2009	1019	1560.91	213.94	1346.97
	12/18/2009	1106	1560.91	213.99	1346.92
	1/18/2010	1111	1560.91	214.11	1346.80
	6/8/2010	1215	1560.91	213.38	1347.53
	6/22/2010	1300	1560.91	213.38	1347.53
	2/23/2011	1240	1560.91	213.34	1347.57
	3/22/2011	1111	1560.91	213.39	1347.52
	4/25/2011	1613	1560.91	213.33	1347.58
	5/27/2011	1000	1560.91	212.37	1348.54
	6/30/2011	1120	1560.91	213.41	1347.50
	7/25/2011	1017	1560.91	213.67	1347.24
	9/2/2011	1250	1560.91	213.46	1347.45
	9/27/2011	1445	1560.91	213.43	1347.48
	10/24/2011	1113	1560.91	213.52	1347.39
	11/28/2011	1038	1560.91	213.52	1347.39
	12/27/2011	1012	1560.91	213.54	1347.37
	1/19/2012	1145	1560.91	213.52	1347.39
	2/27/2012	1435	1560.91	213.51	1347.40
	3/27/2012	0916	1560.91	213.63	1347.28
	4/28/2012	1605	1560.91	213.51	1347.40
	5/8/2012	1159	1560.91	213.90	1347.01
	6/29/2012	1051	1560.91	213.61	1347.30
	7/30/2012	1832	1560.91	213.67	1347.24
	8/13/2012	1153	1560.91	213.68	1347.23
	9/6/2012	1006	1560.91	213.70	1347.21
MW-13	8/29/2008	1138	1595.77	246.82	1348.95
	9/20/2008	758	1595.77	246.75	1349.02

Appendix C

Historical Water Level Data
UPCO and Private Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Well Identification	Date of Measurement	Time of Measurement	Measuring Point Elevation (ft amsl)	Depth to Water from Measuring Point (ft)	Groundwater Elevation (ft amsl)
MW-13 (continued)	10/14/2008	1506	1595.77	246.75	1349.02
	11/21/2008	1340	1595.77	246.78	1348.99
	12/15/2008	1315	1595.77	246.83	1348.94
	1/12/2009	1304	1595.77	246.79	1348.98
	2/16/2009	1547	1595.77	246.81	1348.96
	3/17/2009	1411	1595.77	246.80	1348.97
	4/13/2009	1329	1595.77	246.80	1348.97
	5/20/2009	1323	1595.77	246.90	1348.87
	6/15/2009	1243	1595.77	246.95	1348.82
	7/6/2009	1500	1595.77	246.89	1348.88
	8/12/2009	1349	1595.77	246.98	1348.79
	9/28/2009	0900	1599.52	250.74	1348.78
	10/27/2009	1056	1599.52	250.71	1348.81
	11/25/2009	1047	1599.52	250.98	1348.54
	12/18/2009	1129	1599.52	251.00	1348.52
	1/18/2010	1226	1599.52	251.13	1348.39
	6/8/2010	1310	1599.52	250.83	1348.69
	6/22/2010	1345	1599.52	250.87	1348.65
	2/23/2011	1315	1599.52	250.82	1348.70
	3/22/2011	1145	1599.52	250.86	1348.66
	4/26/2011	0826	1599.52	250.82	1348.70
	5/27/2011	1121	1599.52	250.82	1348.70
	6/30/2011	1326	1599.52	250.92	1348.60
	7/25/2011	1125	1599.52	251.22	1348.30
	9/2/2011	1321	1599.52	250.90	1348.62
	9/27/2011	1528	1599.52	250.87	1348.65
	10/24/2011	1130	1599.52	250.98	1348.54
	11/28/2011	1114	1599.52	250.93	1348.59
	12/27/2011	1044	1599.52	251.03	1348.49
	1/19/2012	1214	1599.52	250.98	1348.54
	2/27/2012	1517	1599.52	250.85	1348.67
	3/27/2012	1000	1599.52	251.10	1348.42
	4/28/2012	1632	1599.52	250.99	1348.53
	5/8/2012	1056	1599.52	251.36	1348.16
	6/29/2012	1155	1599.52	251.45	1348.07
	7/30/2012	1929	1599.52	251.16	1348.36

Appendix C

Historical Water Level Data
UPCO and Private Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Well Identification	Date of Measurement	Time of Measurement	Measuring Point Elevation (ft amsl)	Depth to Water from Measuring Point (ft)	Groundwater Elevation (ft amsl)
MW-13 (continued)	8/17/2012	1330	1599.52	251.18	1348.34
	9/6/2012	1050	1599.52	251.23	1348.29
MW-14	8/29/2008	1340	1602.48	263.25	1339.23
	9/20/2008	732	1602.48	263.38	1339.10
	10/14/2008	1152	1602.48	263.69	1338.79
	11/21/2008	1153	1602.48	264.15	1338.33
	12/15/2008	1045	1602.48	264.02	1338.46
	1/12/2009	1125	1602.48	263.57	1338.91
	2/16/2009	1220	1602.48	263.66	1338.82
	3/17/2009	1240	1602.48	264.03	1338.45
	4/13/2009	1033	1602.48	264.08	1338.40
	5/20/2009	1011	1602.48	264.55	1337.93
	6/15/2009	1032	1602.48	264.65	1337.83
	7/6/2009	0932	1602.48	264.89	1337.59
	8/12/2009	1059	1602.48	265.10	1337.38
	9/28/2009	1240	1602.48	265.59	1336.89
	10/27/2009	0951	1602.48	265.78	1336.70
	11/25/2009	0958	1602.48	266.72	1335.76
	12/18/2009	0952	1602.48	265.98	1336.50
	1/18/2010	0953	1602.48	266.03	1336.45
	6/8/2010	1025	1602.48	266.04	1336.44
	6/22/2010	1048	1602.48	266.49	1335.99
	2/23/2011	1125	1602.48	266.62	1335.86
	3/22/2011	0927	1602.48	266.57	1335.91
	4/25/2011	1433	1602.48	266.85	1335.63
	5/27/2011	0900	1602.48	267.75	1334.73
	6/30/2011	0927	1602.48	267.44	1335.04
	7/25/2011	0845	1602.48	267.81	1334.67
	9/2/2011	1038	1602.48	268.00	1334.48
	9/27/2011	1322	1602.48	268.12	1334.36
	10/24/2011	0942	1602.48	268.11	1334.37
	11/28/2011	0935	1602.48	268.04	1334.44
	12/27/2011	922	1602.48	268.10	1334.38
	1/19/2012	1035	1602.48	268.20	1334.28
	2/27/2012	1404	1602.48	268.48	1334.00
	3/27/2012	0826	1602.48	268.73	1333.75

Appendix C

Historical Water Level Data
UPCO and Private Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Well Identification	Date of Measurement	Time of Measurement	Measuring Point Elevation (ft amsl)	Depth to Water from Measuring Point (ft)	Groundwater Elevation (ft amsl)
MW-14 (continued)	4/28/2012	1424	1602.48	268.76	1333.72
	5/8/2012	1001	1602.48	268.93	1333.55
	6/29/2012	0950	1602.48	268.67	1333.81
	7/30/2012	1430	1602.48	269.30	1333.18
	8/9/2012	0800	1602.48	269.46	1333.02
	9/6/2012	0916	1602.48	269.93	1332.55
MW-15	8/29/2008	1350	1600.48	261.95	1338.53
	9/20/2008	729	1600.48	262.09	1338.39
	10/14/2008	1146	1600.48	262.18	1338.30
	11/21/2008	1200	1600.48	262.45	1338.03
	12/15/2008	1053	1600.48	262.58	1337.90
	1/12/2009	1137	1600.48	262.51	1337.97
	2/16/2009	1320	1600.48	262.53	1337.95
	3/17/2009	1251	1600.48	262.60	1337.88
	4/13/2009	1043	1600.48	262.72	1337.76
	5/20/2009	1021	1600.48	262.96	1337.52
	6/15/2009	1050	1600.48	263.03	1337.45
	7/6/2009	0949	1600.48	263.19	1337.29
	8/12/2009	1107	1600.48	263.36	1337.12
	9/28/2009	1259	1600.48	263.69	1336.79
	10/27/2009	0945	1600.48	263.80	1336.68
	11/25/2009	0952	1600.48	264.20	1336.28
	12/18/2009	0942	1600.48	264.28	1336.20
	1/18/2010	0942	1600.48	264.39	1336.09
	6/8/2010	1015	1600.48	264.50	1335.98
	6/22/2010	1030	1600.48	264.68	1335.80
	2/23/2011	1135	1600.48	265.33	1335.15
	3/22/2011	0932	1600.48	265.45	1335.03
	4/25/2011	1440	1600.48	265.35	1335.13
	5/27/2011	0901	1600.48	265.84	1334.64
	6/30/2011	0937	1600.48	265.90	1334.58
	7/25/2011	0855	1600.48	266.19	1334.29
	9/2/2011	1035	1600.48	266.25	1334.23
	9/27/2011	1329	1600.48	266.27	1334.21
	10/24/2011	0948	1600.48	266.51	1333.97
	11/28/2011	0947	1600.48	266.58	1333.90

Historical Water Level Data
UPCO and Private Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Well Identification	Date of Measurement	Time of Measurement	Measuring Point Elevation (ft amsl)	Depth to Water from Measuring Point (ft)	Groundwater Elevation (ft amsl)
MW-15 (continued)	12/27/2011	929	1600.48	266.70	1333.78
	1/19/2012	1045	1600.48	266.74	1333.74
	2/27/2012	1409	1600.48	266.85	1333.63
	3/27/2012	0834	1600.48	267.13	1333.35
	4/28/2012	1428	1600.48	267.14	1333.34
	5/8/2012	1018	1600.48	267.59	1332.89
	6/29/2012	0955	1600.48	267.43	1333.05
	7/30/2012	1439	1600.48	267.52	1332.96
	8/9/2012	0913	1600.48	267.76	1332.72
	9/6/2012	0924	1600.48	268.04	1332.44
MW-16	4/25/2011	1452	1585.36	253.89	1331.47
	5/27/2011	0914	1585.36	254.05	1331.31
	6/30/2011	0959	1585.36	254.26	1331.10
	7/25/2011	0914	1585.36	254.35	1331.01
	9/2/2011	0954	1585.36	254.40	1330.96
	9/27/2011	1400	1585.36	254.38	1330.98
	10/24/2011	1036	1585.36	254.59	1330.77
	11/28/2011	1036	1585.36	255.64	1329.72
	12/27/2011	939	1585.36	254.84	1330.52
	1/19/2012	1056	1585.36	255.83	1329.53
	2/27/2012	1418	1585.36	255.13	1330.23
	3/27/2012	0845	1585.36	255.24	1330.12
	4/28/2012	1526	1585.36	255.23	1330.13
	5/8/2012	0915	1585.36	255.73	1329.63
	6/29/2012	1004	1585.36	255.56	1329.80
	7/30/2012	1502	1585.36	255.71	1329.65
	8/10/2012	1315	1585.36	255.79	1329.57
	9/6/2012	0935	1585.36	256.19	1329.17
MW-17	4/25/2011	1346	1560.72	206.72	1354.00
	5/27/2011	0814	1560.72	206.78	1353.94
	6/30/2011	0835	1560.72	206.92	1353.80
	7/25/2011	0800	1560.72	207.18	1353.54
	9/2/2011	1045	1560.72	206.93	1353.79
	9/27/2011	1248	1560.72	207.06	1353.66
	10/24/2011	0905	1560.72	207.15	1353.57
	11/28/2011	0851	1560.72	207.24	1353.48

Appendix C

Historical Water Level Data
UPCO and Private Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Well Identification	Date of Measurement	Time of Measurement	Measuring Point Elevation (ft amsl)	Depth to Water from Measuring Point (ft)	Groundwater Elevation (ft amsl)
MW-17 (continued)	12/27/2011	901	1560.72	207.33	1353.39
	1/19/2012	1000	1560.72	207.32	1353.40
	2/27/2012	1338	1560.72	207.28	1353.44
	3/27/2012	0746	1560.72	207.60	1353.12
	4/28/2012	1511	1560.72	207.40	1353.32
	5/8/2012	0802	1560.72	207.89	1352.83
	6/29/2012	0926	1560.72	207.83	1352.89
	7/30/2012	1450	1560.72	207.87	1352.85
	8/9/2012	1120	1560.72	207.98	1352.74
	9/6/2012	0836	1560.72	208.11	1352.61
MW-18	9/28/2009	0805	1533.53	181.20	1352.33
	10/27/2009	0754	1533.53	132.18	1401.35
	11/25/2009	0701	1533.53	131.17	1402.36
	12/18/2009	0819	1533.53	130.11	1403.42
	1/18/2010	0758	1533.53	129.84	1403.69
	6/8/2010	1358	1533.53	129.81	1403.72
	6/22/2010	1133	1533.53	129.85	1403.68
	2/23/2011	0835	1533.53	130.17	1403.36
	3/22/2011	0810	1533.53	130.20	1403.33
	4/25/2011	1305	1533.53	130.99	1402.54
	5/27/2011	0737	1533.53	130.70	1402.83
	6/30/2011	0720	1533.53	130.61	1402.92
	7/25/2011	0645	1533.53	130.84	1402.69
	9/2/2011	1135	1533.53	130.99	1402.54
	9/27/2011	1210	1533.53	130.91	1402.62
	10/24/2011	0819	1533.53	130.88	1402.65
	11/28/2011	0800	1533.53	131.00	1402.53
	12/27/2011	826	1533.53	130.98	1402.55
	1/19/2012	0915	1533.53	130.85	1402.68
	2/27/2012	1258	1533.53	131.08	1402.45
	3/27/2012	0705	1533.53	131.01	1402.52
	4/28/2012	1320	1533.53	130.82	1402.71
	5/8/2012	0639	1533.53	131.04	1402.49
	6/29/2012	0850	1533.53	130.85	1402.68
	7/30/2012	1650	1533.53	130.87	1402.66

Appendix C

Historical Water Level Data
UPCO and Private Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Well Identification	Date of Measurement	Time of Measurement	Measuring Point Elevation (ft amsl)	Depth to Water from Measuring Point (ft)	Groundwater Elevation (ft amsl)
MW-18 (continued)	8/7/2012	0935	1533.53	130.88	1402.65
	9/6/2012	0755	1533.53	131.43	1402.10
MW-19	4/26/2011	0832	1599.51	250.80	1348.71
	5/27/2011	1127	1599.51	251.40	1348.11
	6/30/2011	1338	1599.51	250.87	1348.64
	7/25/2011	1132	1599.51	251.05	1348.46
	9/2/2011	1334	1599.51	250.88	1348.63
	9/27/2011	1534	1599.51	250.90	1348.61
	10/24/2011	1210	1599.51	250.94	1348.57
	11/28/2011	1214	1599.51	250.94	1348.57
	12/27/2011	1134	1599.51	251.00	1348.51
	1/19/2012	1300	1599.51	250.94	1348.57
	2/27/2012	1620	1599.51	251.01	1348.50
	3/27/2012	1056	1599.51	251.09	1348.42
	4/28/2012	1659	1599.51	250.99	1348.52
	5/8/2012	1107	1599.51	251.28	1348.23
	6/29/2012	1240	1599.51	251.06	1348.45
	7/30/2012	1953	1599.51	251.16	1348.35
	8/17/2012	2050	1599.51	251.18	1348.33
	9/6/2012	1146	1599.51	251.15	1348.36
MW-20	2/27/2012	1547	1580.867	232.39	1348.48
	3/27/2012	1032	1580.867	232.60	1348.27
	4/28/2012	1653	1580.87	232.42	1348.45
	5/8/2012	1131	1580.87	232.73	1348.14
	6/29/2012	1226	1580.87	232.50	1348.37
	7/30/2012	1942	1580.87	232.56	1348.31
	8/19/2012	1940	1580.87	232.62	1348.25
	9/6/2012	1122	1580.87	232.54	1348.33
MW-21	2/27/2012	1508	1565.283	216.84	1348.44
	3/27/2012	0949	1565.283	216.97	1348.31
	4/28/2012	1616	1565.28	216.84	1348.44
	5/8/2012	1152	1565.28	217.21	1348.07
	6/29/2012	1131	1565.28	216.94	1348.34
	7/30/2012	1848	1565.28	216.98	1348.30
	8/16/2012	1807	1565.28	216.99	1348.29
	9/6/2012	1039	1565.28	217.06	1348.22

Appendix C

Historical Water Level Data
UPCO and Private Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Well Identification	Date of Measurement	Time of Measurement	Measuring Point Elevation (ft amsl)	Depth to Water from Measuring Point (ft)	Groundwater Elevation (ft amsl)
PW-1	9/6/2011	620	1554.46	209.22	1345.24
	9/27/2011	1418	1554.46	208.93	1345.53
	10/24/2011	1120	1554.46	208.94	1345.52
	11/28/2011	1101	1554.46	209.11	1345.35
	12/27/2011	1032	1554.46	209.03	1345.43
	1/19/2012	1205	1554.46	208.98	1345.48
	2/27/2012	1458	1554.46	209.21	1345.25
	3/27/2012	937	1554.46	209.44	1345.02
	4/28/2012	1547	1554.46	209.31	1345.15
	5/8/2012	1217	1554.46	209.77	1344.69
	6/29/2012	1031	1554.46	209.63	1344.83
	7/30/2012	1720	1554.46	209.66	1344.80
	8/16/2012	1345	1554.46	209.83	1344.63
	9/6/2012	1205	1554.46	209.94	1344.52
18 E. Yearling	2/23/2011	1000	1596.79	NA	NA
218 East Yearling	2/23/2011	949	1617.01	336.65	1280.36
	4/25/2011	1420	1596.79	321.91	1274.88
	5/27/2011	850	1596.79	322.90	1273.89
	6/30/2011	912	1596.79	336.25	1260.54
	7/25/2011	830	1596.79	335.35	1261.44
	9/27/2011	1315	1596.79	330.03	1266.76
	10/24/2011	939	1596.79	331.12	1265.67
	11/28/2011	923	1596.79	327.42	1269.37
	12/27/2011	916	1596.79	NA	NA
	1/19/2012	1026	1596.79	NA	NA
	2/27/2012	1355	1596.79	NA	NA
	3/27/2012	808	1596.79	NA	NA
	4/28/2012	--	1596.79	NA	NA
	5/8/2012	1027	1596.79	NA	NA
	6/29/2012	--	1596.79	NA	NA
	7/30/2012	1400	1596.79	NA	NA
	8/8/2012	1520	1596.79	342.86	1253.93

Appendix C

Historical Water Level Data
UPCO and Private Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Well Identification	Date of Measurement	Time of Measurement	Measuring Point Elevation (ft amsl)	Depth to Water from Measuring Point (ft)	Groundwater Elevation (ft amsl)
520 East Yearling	2/23/2011	925	1635.71	300.58	1335.13
	4/25/2011	1410	1635.71	NM	NM
	5/27/2011	830	1635.71	302.03	1333.68
	6/30/2011	857	1635.71	302.28	1333.43
	7/25/2011	815	1635.71	303.19	1332.52
	9/27/2011	1303	1635.71	NA	NA
	10/24/2011	925	1635.71	303.45	1332.26
	11/28/2011	914	1635.71	303.25	1332.46
	12/27/2011	912	1635.71	NA	NA
	1/19/2012	1019	1635.71	303.32	1332.39
	2/27/2012	1347	1635.71	303.45	1332.26
	3/27/2012	759	1635.71	303.85	1331.86
	4/28/2012	--	1635.71	NA	NA
	5/8/2012	1039	1635.71	304.20	1331.51
	6/29/2012	--	1635.71	NA	NA
	7/30/2012	1415	1635.71	303.63	1332.08
	9/6/2012	820	1635.71	310.42	1325.29

Notes:
Measured depth to water and calculated groundwater elevations at private wells may not represent actual static water levels because these are active pumping wells, subject to frequent water level fluctuations.
amsl = above mean sea level
ft = feet
NM = Not measured
NA = No access

ARCADIS

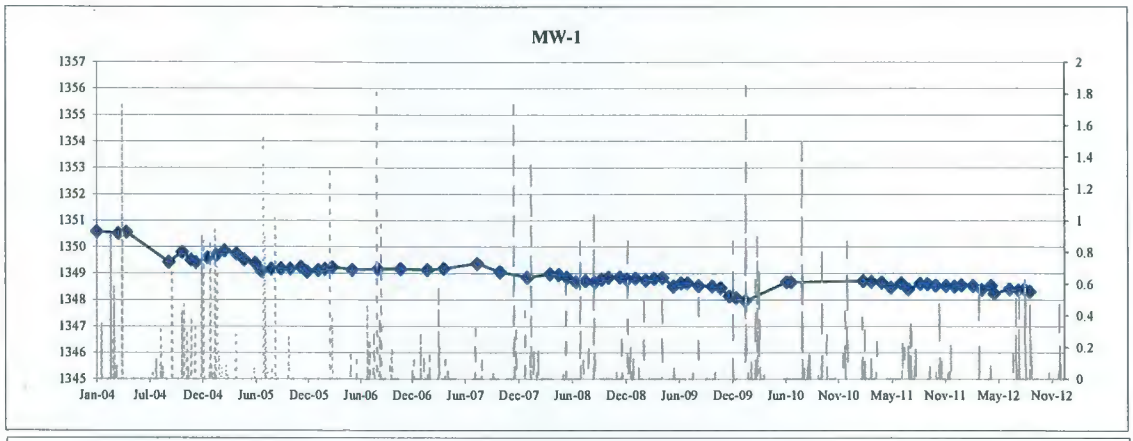
Appendix D

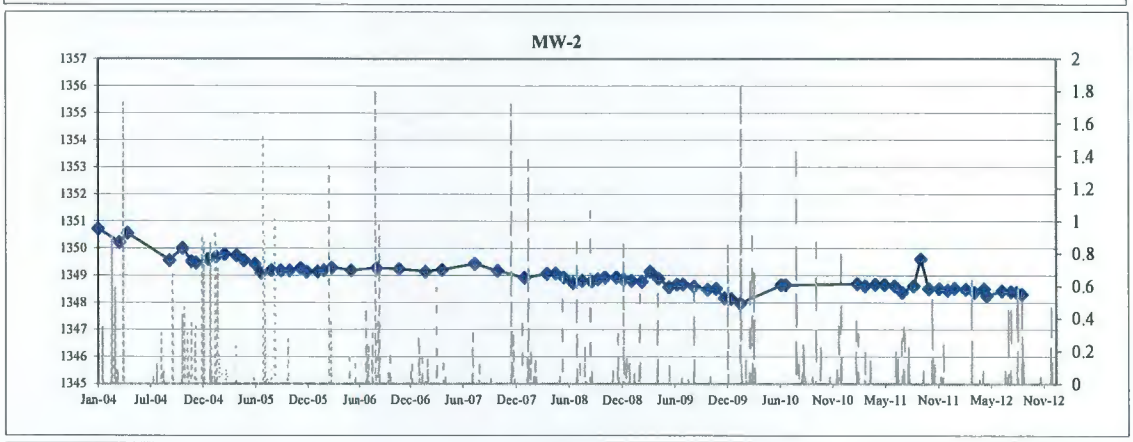
Monitor Well Hydrographs

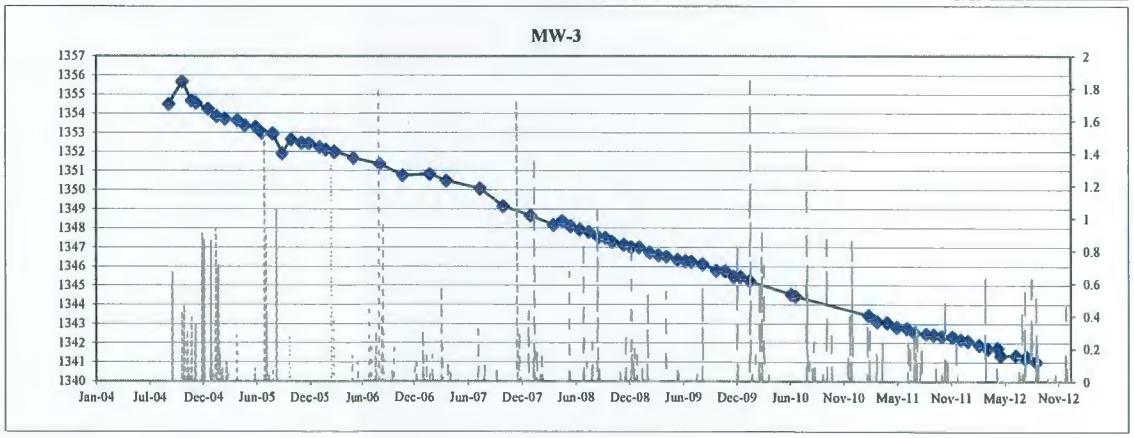
Appendix D

Well Hydrographs (feet amsl) with Precipitation (in/day)

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona



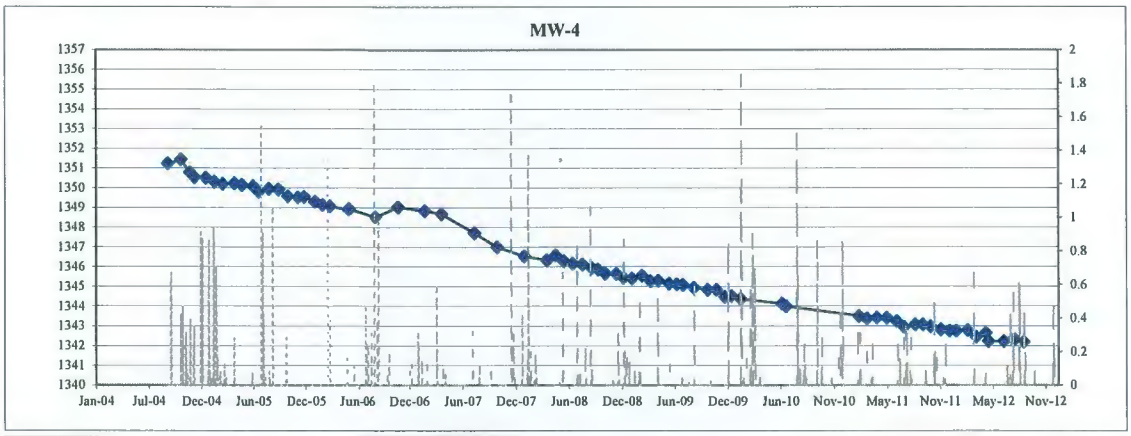


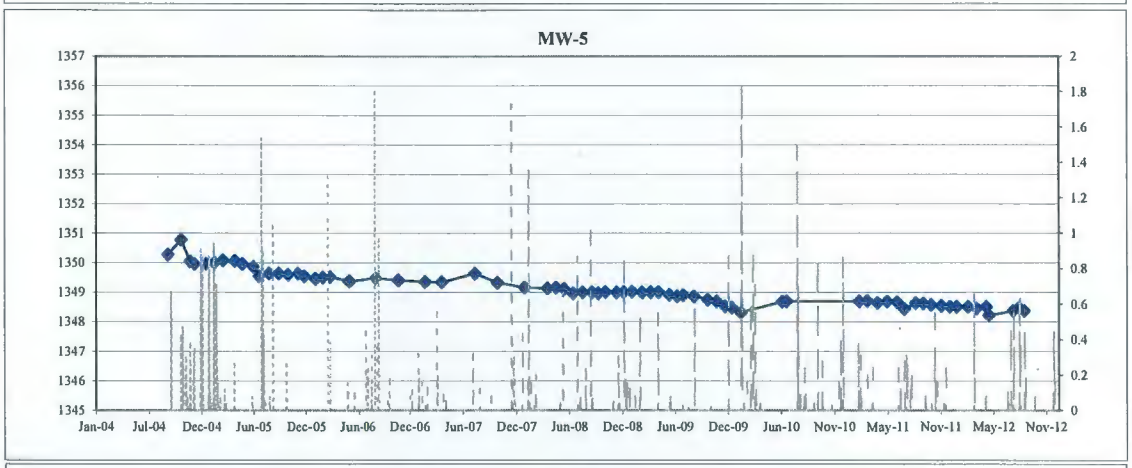


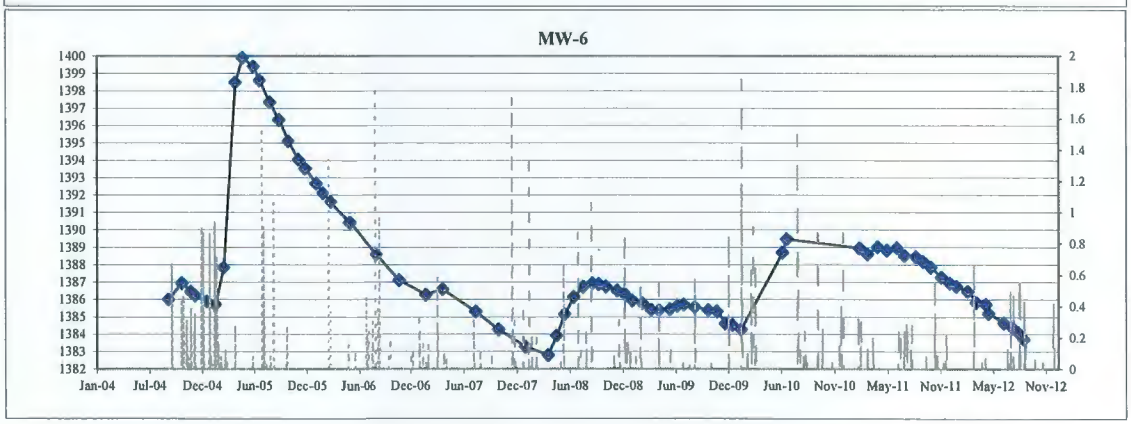
Appendix D

Well Hydrographs (feet amsl) with Precipitation (in/day)

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona



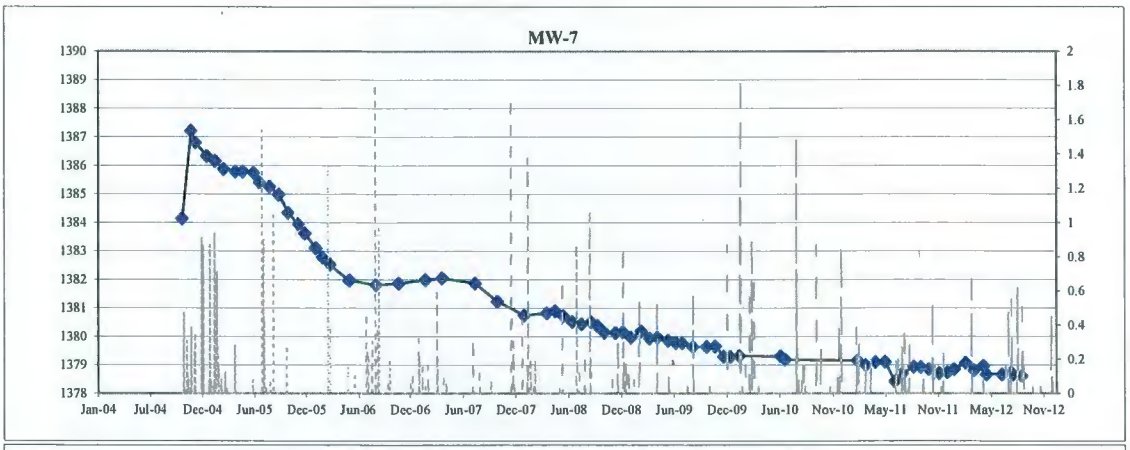


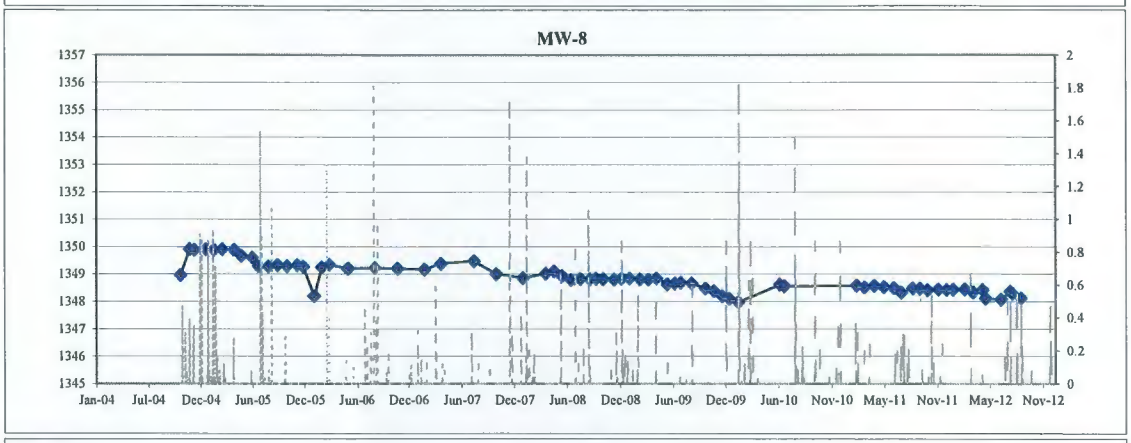


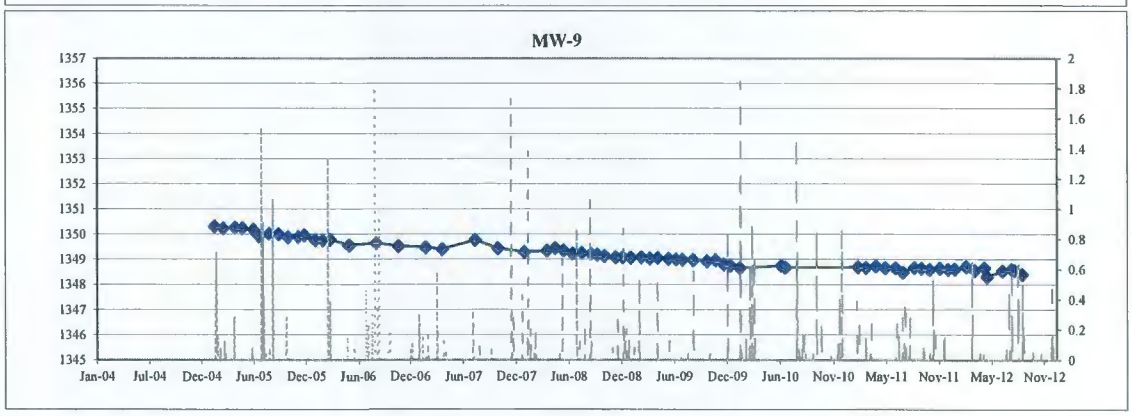
Appendix D

Well Hydrographs (feet amsl) with Precipitation (in/day)

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

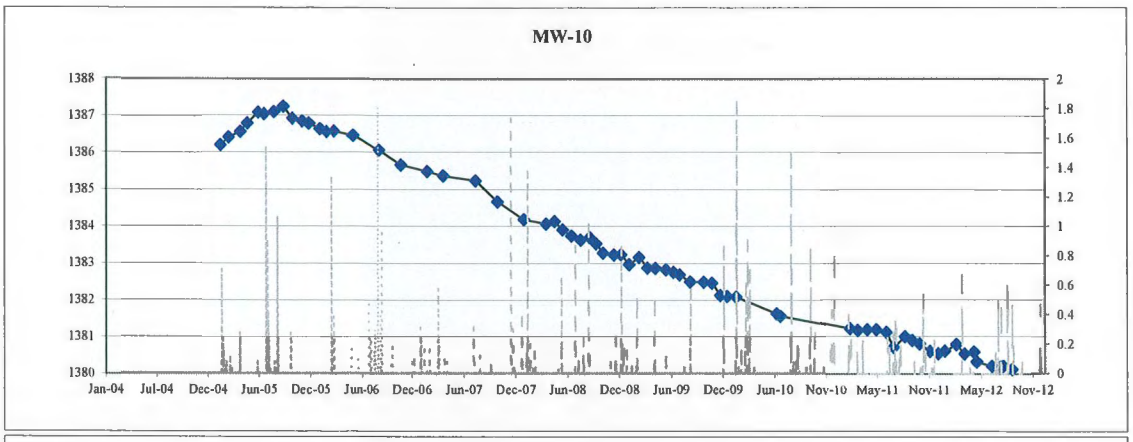


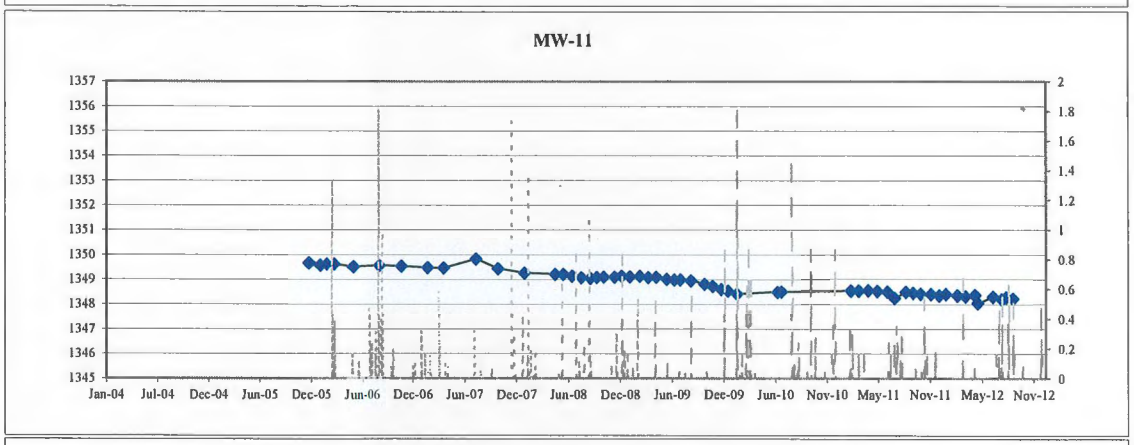


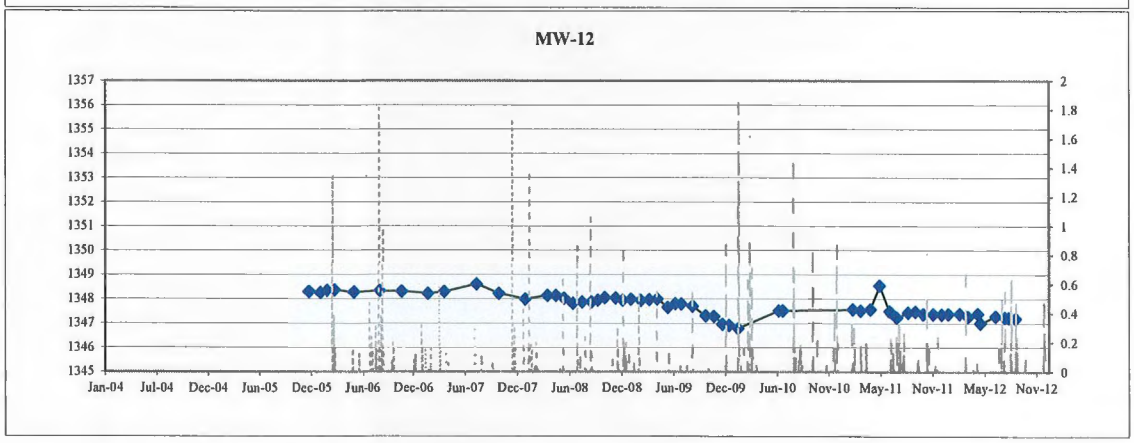


Well Hydrographs (feet amsl) with Precipitation (in/day)

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona



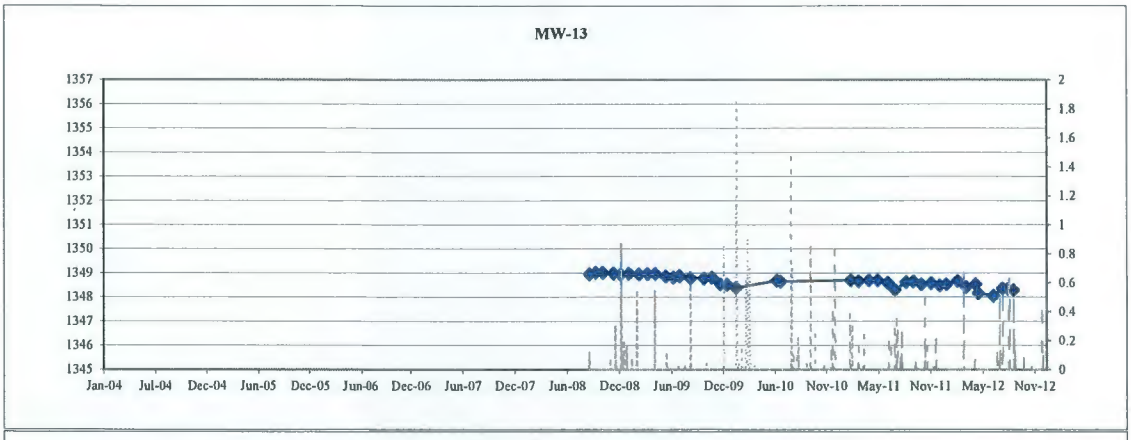


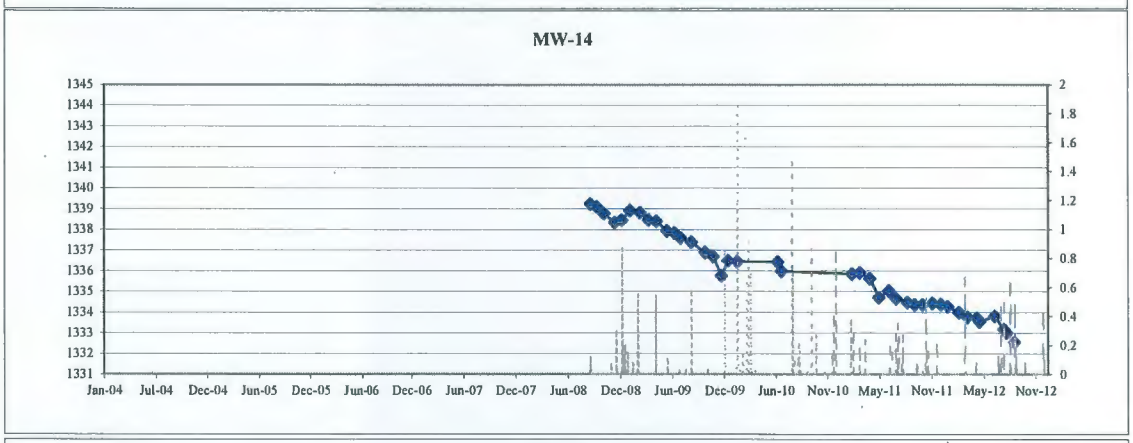


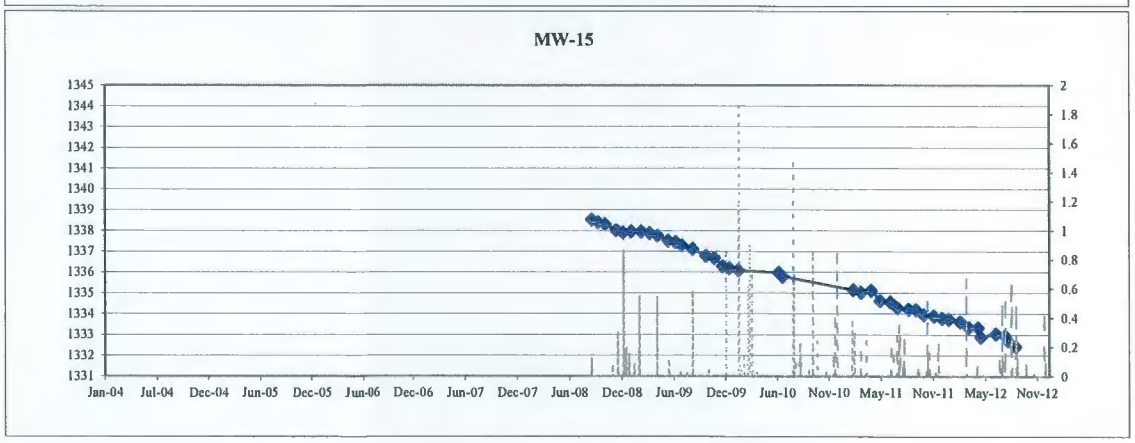
Appendix D

Well Hydrographs (feet amsl) with Precipitation (in/day)

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona



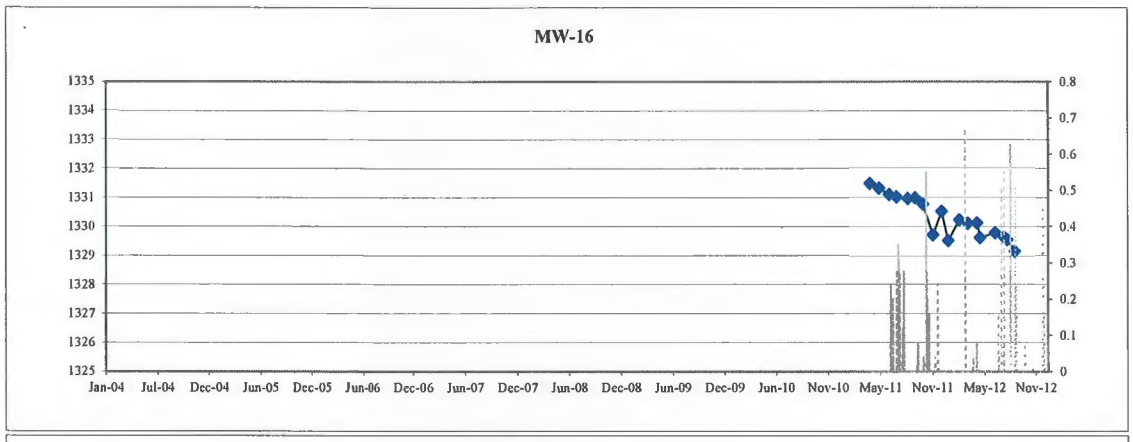


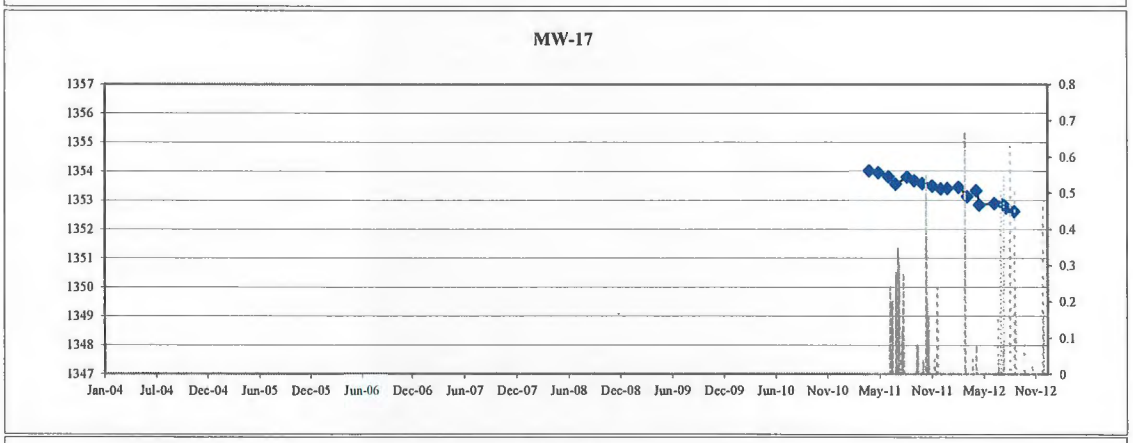


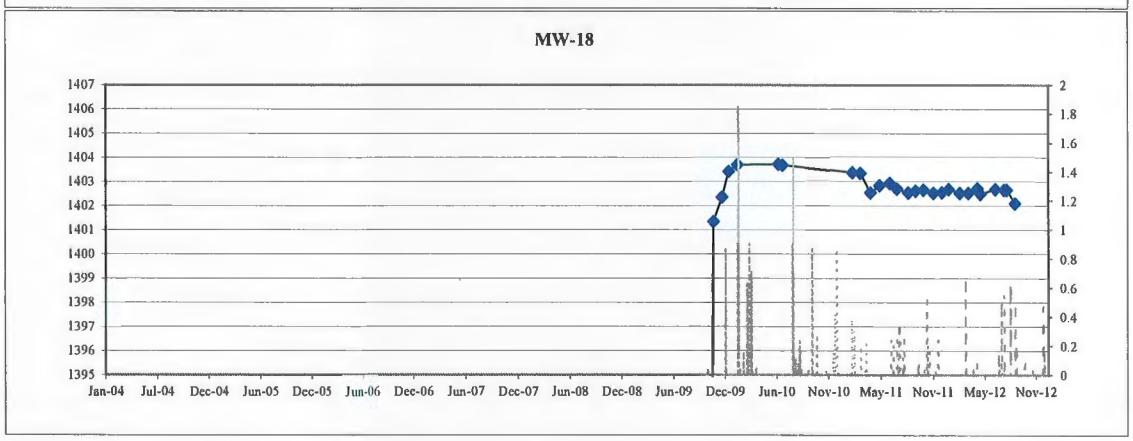
Appendix D

Well Hydrographs (feet amsl) with Precipitation (in/day)

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona



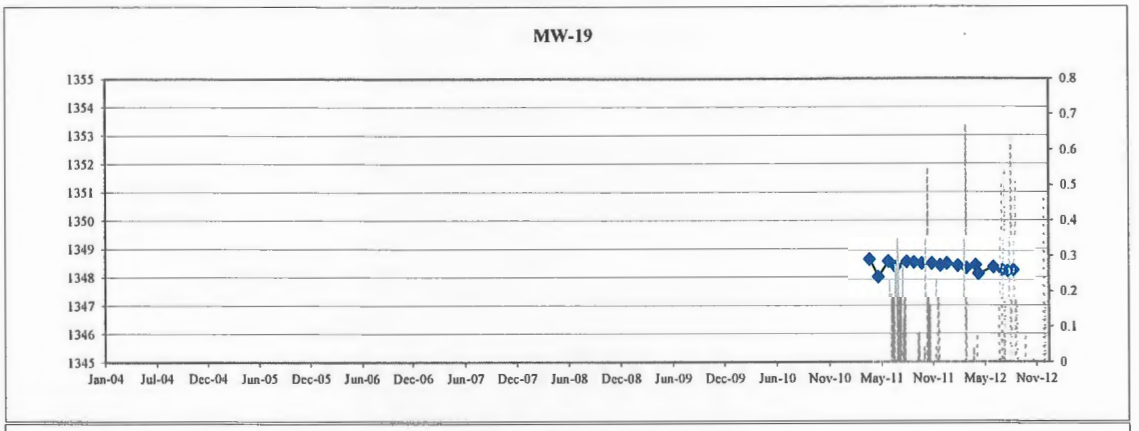


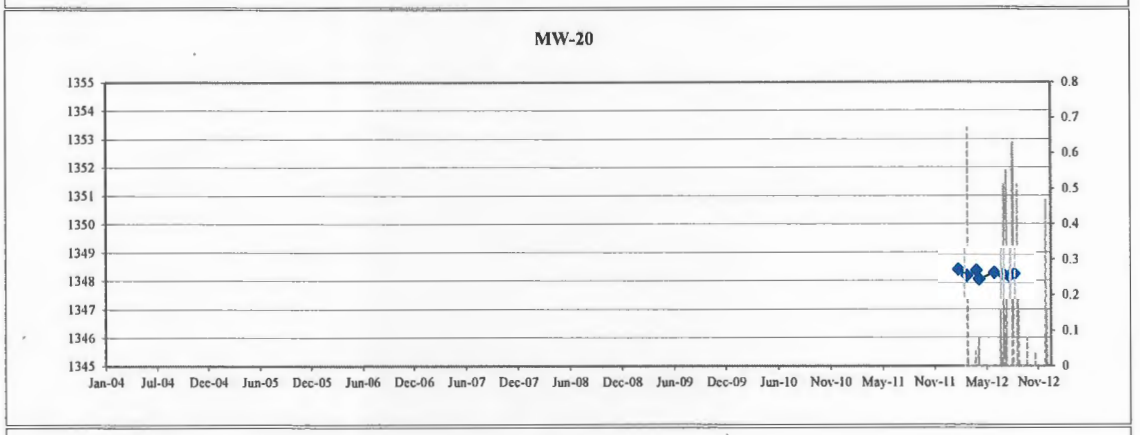


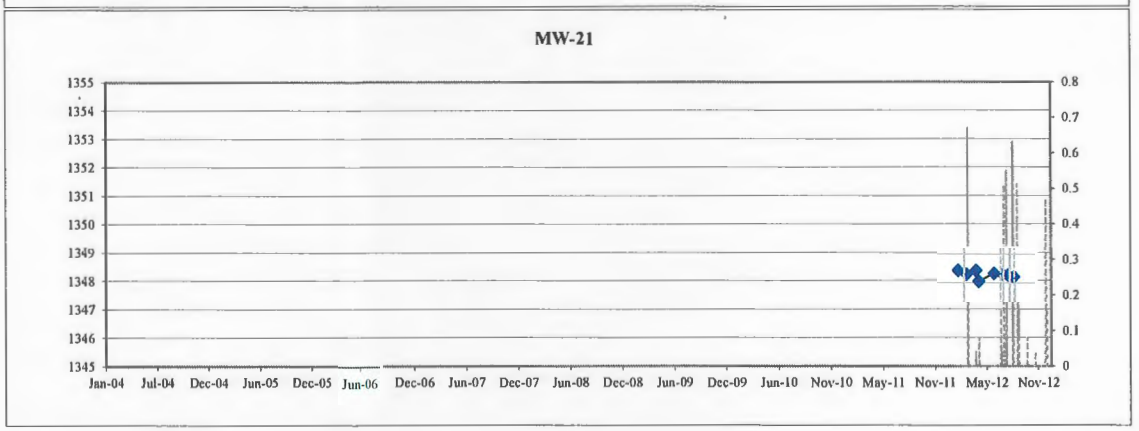
Appendix D

Well Hydrographs (feet amsl) with Precipitation (in/day)

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona



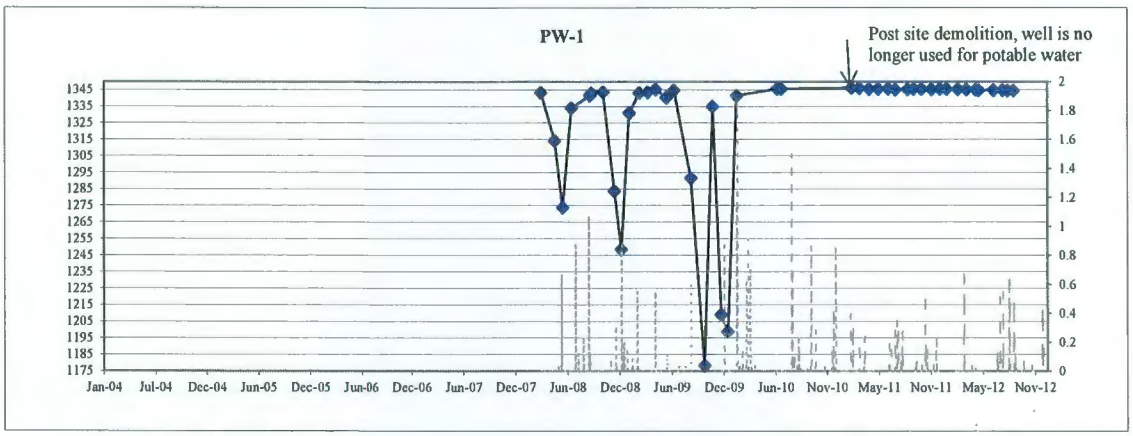




Appendix D

Well Hydrographs (feet amsl) with Precipitation (in/day)

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona



ARCADIS

Appendix E

2012 Monitor Well Water Quality Data

Appendix E

2012 Monitor Well Water Quality Data

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Parameter	MW-1 1/26/2012	MW-1 8/19/2012	MW-2 1/25/2012	MW-2 8/19/2012	MW-3 2/1/2012	MW-4 1/26/2012	MW-5 1/25/2012	MW-6 2/1/2012	MW-7 1/27/2012	MW-8 1/31/2012	MW-8 8/8/2012	MW-9 1/27/2012	MW-10 1/31/2012	MW-11 1/30/2012	MW-12 2/3/2012
General Chemistry (mg/L)															
Alkalinity as CaCO3	150	NA	160	NA	NA	180	160	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Phenolphthalein	<6.0	NA	<6.0	NA	NA	<6.0	<6.0	NA	NA	NA	NA	NA	NA	NA	NA
Bicarbonate Alkalinity as CaCO3	150	NA	160	NA	NA	180	160	NA	NA	NA	NA	NA	NA	NA	NA
Biochemical Oxygen Demand	<5.0	NA	<5.0	NA	NA	<5.0	<5.0	NA	NA	NA	NA	NA	NA	NA	NA
Carbonate Alkalinity as CaCO3	<6.0	NA	<6.0	NA	NA	<6.0	<6.0	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand	<20	NA	<20	NA	NA	<20	<20	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	21	NA	24	NA	NA	21	13	NA	NA	NA	NA	NA	NA	NA	NA
Fluoride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness, Total	150	NA	130	NA	NA	130	99	NA	NA	NA	NA	NA	NA	NA	NA
Hydroxide Alkalinity as CaCO3	<6.0	NA	<6.0	NA	NA	<6.0	<6.0	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate-N	1.8	NA	3.8	NA	NA	1.5	1.8	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite-N	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	13	NA	7.1	NA	NA	6.2	5.1	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	280	NA	280	NA	NA	280	250	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	<1.0	NA	<1.0	NA	NA	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	NA
Metals (mg/L)															
Arsenic	0.010	NA	0.0084	NA	0.0053	0.0026	0.0099	0.0067	0.026	0.047	0.043	0.0073	0.016	0.0070	0.0067
Barium	0.041	NA	0.076	NA	0.017	0.075	0.053	0.013	0.0064	0.0028	0.0088	0.062	0.0068	0.14	0.028
Cadmium	<0.0010	NA	<0.0010	NA	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Calcium	43	NA	33	NA	NA	38	26	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.0027	NA	0.015	NA	<0.0010	<0.0010	0.031	<0.0010	0.0066	0.024	0.020	<0.0010	0.0023	0.0033	0.0062
Iron	0.10	NA	<0.050	NA	NA	<0.050	<0.050	NA	NA	NA	0.61	NA	NA	NA	NA
Iron (Dissolved)	<0.050	NA	<0.050	NA	NA	<0.050	<0.050	NA	NA	NA	NA	NA	NA	NA	NA
Lead	<0.0010	NA	<0.0010	NA	<0.0010	0.0016	<0.0010	0.0029	0.0023	<0.0010	0.0017	0.0021	0.016	<0.0010	0.0011
Magnesium	9.1	NA	11	NA	NA	8.7	8.5	NA	NA	NA	<2.0	NA	NA	NA	NA
Manganese	<0.010	NA	<0.010	NA	NA	<0.010	<0.010	NA	NA	0.013	NA	NA	NA	NA	NA
Manganese (Dissolved)	<0.010	NA	<0.010	NA	NA	<0.010	<0.010	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	<0.00020	NA	<0.00020	NA	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Selenium	<0.0020	NA	<0.0020	NA	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0046	<0.0020
Silver	<0.0010	NA	<0.0010	NA	<0.0010 UJ	<0.0010	<0.0010	<0.0010 UJ	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Volatile Organic Compounds (ug/L)															
1,1,1,2-Tetrachloroethane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50
1,1,1-Trichloroethane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50
1,1,2,2-Tetrachloroethane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50
1,1,2-Trichloroethane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50
1,1-Dichloroethane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50
1,1-Dichloroethene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50
1,1-Dichloropropene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50
1,2,3-Trichlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichloropropane	<1.0	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50
1,2-Dibromo-3-chloropropane	<2.5	<5.0	<2.5	<5.0	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	NA	<2.5	<2.5	<2.5	<2.5
1,2-Dibromoethane (EDB)	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50
1,2-Dichlorobenzene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50
1,2-Dichloroethane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50
1,2-Dichloropropane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50
1,3,5-Trimethylbenzene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50
1,3-Dichlorobenzene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50
1,3-Dichloropropane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50
1,4-Dichlorobenzene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50
1,4-Dioxane	<2.0	<2.0	2.8	2.9	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	NA	<2.0	<2.0	<2.0 UJ	<2.0
2,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0
2-Butanone (MEK)	<2.5	<5.0	<2.5	<5.0	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	NA	<2.5	<2.5	<2.5	<2.5
2-Chlorotoluene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50
2-Hexanone	<2.5	<5.0	<2.5	<5.0	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	NA	<2.5	<2.5	<2.5	<2.5
4-Chlorotoluene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50
4-Methyl-2-pentanone (MIBK)	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	NA	<2.5	<2.5	<2.5	<2.5

Appendix E

2012 Monitor Well Water Quality Data

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Parameter	MW-1 1/26/2012	MW-1 8/19/2012	MW-2 1/25/2012	MW-2 8/19/2012	MW-3 2/1/2012	MW-4 1/26/2012	MW-5 1/25/2012	MW-6 2/1/2012	MW-7 1/27/2012	MW-8 1/31/2012	MW-8 8/8/2012	MW-9 1/27/2012	MW-10 1/31/2012	MW-11 1/30/2012	MW-12 2/3/2012
Acetone	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	NA	<10	<10	<10	<10
Benzene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50
Bromobenzene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50
Bromochloromethane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50
Bromodichloromethane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50
Bromoform	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0
Bromomethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0
Carbon disulfide	<0.50	<1.0	<0.50	<1.0	<0.50 UJ	<0.50	<0.50	<0.50 UJ	<0.50	<0.50 UJ	NA	<0.50	<0.50 UJ	<0.50 UJ	<0.50 UJ
Carbon tetrachloride	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50
Chlorobenzene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50
Chloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0
Chloroform	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50
Chloromethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50
cis-1,3-Dichloropropene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50
Dibromochloromethane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50
Dibromomethane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50
Dichlorodifluoromethane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50
Hexachlorobutadiene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0
Iodomethane	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	NA	<2.5	<2.5	<2.5	<2.5
Isopropylbenzene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50
Methylene Chloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0
Methyl-tert-butyl Ether (MTBE)	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50
Naphthalene	<2.5	<2.5	2.7	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	NA	<2.5	<2.5	<2.5	<2.5
n-Butylbenzene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50
n-Propylbenzene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50
p-Isopropyltoluene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50
sec-Butylbenzene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50
Styrene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50
tert-Butylbenzene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50
Tetrachloroethene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50
Toluene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50
trans-1,2-Dichloroethene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50
trans-1,3-Dichloropropene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50
Trichloroethene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50
Trichlorofluoromethane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50
Vinyl Acetate	<1.0	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0
Vinyl chloride	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50
Xylenes, Total	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	NA	<1.5	<1.5	<1.5	<1.5

Notes:
mg/L = milligrams per liter
ug/L = micrograms per liter
NA = Not analyzed
< = Analyte not detected above the laboratory reporting limit
UJ = Estimated reporting limit
J = Analyte was positively identified; however, the result should be considered an estimated value

Appendix E

2012 Monitor Well Water Quality Data

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Parameter	MW-13 1/24/2012	MW-14 2/1/2012	MW-15 2/1/2012	MW-16 2/1/2012	MW-17 1/31/2012	MW-18 1/31/2012	MW-18 8/8/2012	MW-19 1/26/2012	MW-20 2/6/2012	MW-20 5/11/2012	MW-21 2/9/2012	PW-1 2/1/2012	PW-1 8/16/2012
General Chemistry (mg/L)													
Alkalinity as CaCO3	200	NA	NA	NA	NA	NA	NA	140	160	NA	160	NA	NA
Alkalinity, Phenolphthalein	<6.0	NA	NA	NA	NA	NA	NA	<6.0	<6.0	NA	<6.0	NA	NA
Bicarbonate Alkalinity as CaCO3	200	NA	NA	NA	NA	NA	NA	140	160	NA	160	NA	NA
Biochemical Oxygen Demand	<5.0	NA	NA	NA	NA	NA	NA	<5.0	<5.0	NA	<5.0	NA	NA
Carbonate Alkalinity as CaCO3	<6.0	NA	NA	NA	NA	NA	NA	<6.0	<6.0	NA	<6.0	NA	NA
Chemical Oxygen Demand	<20	NA	NA	NA	NA	NA	NA	<20	NA	NA	<20	NA	NA
Chloride	15	NA	NA	NA	NA	NA	NA	24	44	NA	12	NA	NA
Fluoride	NA	NA	NA	NA	NA	NA	NA	NA	0.63	NA	<0.40	NA	NA
Hardness, Total	140	NA	NA	NA	NA	NA	NA	150	150	NA	140	NA	NA
Hydroxide Alkalinity as CaCO3	<6.0	NA	NA	NA	NA	NA	NA	<6.0	<6.0	NA	<6.0	NA	NA
Nitrate-N	1.2	NA	NA	NA	NA	NA	NA	6.7	7.0	NA	2.0	NA	NA
Nitrite-N	NA	NA	NA	NA	NA	NA	NA	NA	<0.20	NA	<0.20	NA	NA
Sulfate	10	NA	NA	NA	NA	NA	NA	11	15	NA	4.9	NA	NA
Total Dissolved Solids	260	NA	NA	NA	NA	NA	NA	360	330	NA	240	NA	NA
Total Organic Carbon	<1.0	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	<1.0	NA	NA
Metals (mg/L)													
Arsenic	0.0050	0.0010	0.0027	0.0021	0.0047	0.015	0.014	0.011	<0.10	NA	0.0074	0.0085	NA
Barium	0.057	0.29	0.22	0.12	0.058	0.018	0.018	0.032	0.086	NA	0.030	0.0073	NA
Cadmium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	NA	<0.0010	<0.0010	NA
Calcium	32	NA	NA	NA	NA	NA	NA	35	40	NA	41	NA	NA
Chromium	0.0017	<0.0010	<0.0010	<0.0010	0.0024	0.0032	0.0057	0.020	0.010	NA	0.0019	0.0023	NA
Iron	1.3	NA	NA	NA	NA	NA	0.78	0.13	0.15	NA	0.055	NA	NA
Iron (Dissolved)	0.10	NA	NA	NA	NA	NA	NA	<0.050	<0.050	NA	<0.050	NA	NA
Lead	<0.0010	<0.0010	<0.0010	0.0017	0.0018	<0.0010	0.0016	<0.0010	<0.015	NA	0.019	<0.0010	NA
Magnesium	14	NA	NA	NA	NA	NA	<2.0	16	13	NA	8.4	NA	NA
Manganese	0.023	NA	NA	NA	NA	0.051	NA	<0.010	0.015	NA	<0.010	NA	NA
Manganese (Dissolved)	<0.010	NA	NA	NA	NA	NA	NA	<0.010	<0.010	NA	<0.010	NA	NA
Mercury	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	NA	<0.00020	<0.00020	NA
Selenium	<0.0020	0.0030	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.10	NA	<0.0020	0.0056	NA
Silver	<0.0010	<0.0010 UJ	<0.0010 UJ	<0.0010 UJ	<0.0010	<0.0010	<0.0010	<0.0010	<0.010	NA	<0.0010	<0.0010 UJ	NA
Volatile Organic Compounds (ug/L)													
1,1,1,2-Tetrachloroethane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	<0.50	<0.50	<0.50	<0.50
1,1,1-Trichloroethane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	<0.50	<0.50	<0.50	<0.50
1,1,2,2-Tetrachloroethane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	<0.50	<0.50	<0.50	<0.50
1,1,2-Trichloroethane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	<0.50	<0.50	<0.50	<0.50
1,1-Dichloroethane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	<0.50	<0.50	0.65	0.64
1,1-Dichloroethene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	0.60	<0.50	5.5	5.0
1,1-Dichloropropene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	<0.50	<0.50	<0.50	<0.50
1,2,3-Trichlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	NA	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichloropropane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	NA	<2.0	<1.0	<1.0	<2.0
1,2,4-Trichlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	NA	<1.0	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	<0.50	<0.50	<0.50	<0.50
1,2-Dibromo-3-chloropropane	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	NA	<2.5	NA	<5.0	<2.5	<2.5	<5.0
1,2-Dibromoethane (EDB)	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	<0.50	<0.50	<0.50	<0.50
1,2-Dichlorobenzene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	<0.50	<0.50	<0.50	<0.50
1,2-Dichloroethane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	<0.50	<0.50	<0.50	<0.50
1,2-Dichloropropane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	<0.50	<0.50	<0.50	<0.50
1,3,5-Trimethylbenzene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	<0.50	<0.50	<0.50	<0.50
1,3-Dichlorobenzene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	<0.50	<0.50	<0.50	<0.50
1,3-Dichloropropane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	<0.50	<0.50	<0.50	<0.50
1,4-Dichlorobenzene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	<0.50	<0.50	<0.50	<0.50
1,4-Dioxane	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	NA	<2.0	14	14	<2.0	3.2	3.1
2,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	NA	<1.0	<1.0	<1.0	<1.0
2-Butanone (MEK)	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	NA	<2.5	NA	<5.0	<2.5	<2.5	<5.0
2-Chlorotoluene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	<0.50	<0.50	<0.50	<0.50
2-Hexanone	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	NA	<2.5	NA	<5.0	<2.5	<2.5	<5.0
4-Chlorotoluene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	<0.50	<0.50	<0.50	<0.50
4-Methyl-2-pentanone (MIBK)	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	NA	<2.5	NA	<2.5	<2.5	<2.5	<2.5

Appendix E

2012 Monitor Well Water Quality Data

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Parameter	MW-13 1/24/2012	MW-14 2/1/2012	MW-15 2/1/2012	MW-16 2/1/2012	MW-17 1/31/2012	MW-18 1/31/2012	MW-18 8/8/2012	MW-19 1/26/2012	MW-20 2/6/2012	MW-20 5/11/2012	MW-21 2/9/2012	PW-1 2/1/2012	PW-1 8/16/2012
Acetone	<10	<10	<10	<10	<10	<10	NA	<10	NA	<10	<10	<10	<10
Benzene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	<0.50	<0.50	<0.50	<0.50
Bromobenzene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	<0.50	<0.50	<0.50	<0.50
Bromochloromethane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	<0.50	<0.50	<0.50	<0.50
Bromodichloromethane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	<0.50	<0.50	<0.50	<0.50
Bromoform	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	NA	<1.0	<1.0	<1.0	<1.0
Bromomethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	NA	<1.0	<1.0	<1.0	<1.0
Carbon disulfide	<0.50	<0.50 UJ	<0.50 UJ	<0.50 UJ	<0.50 UJ	<0.50 UJ	NA	<0.50	NA	<1.0	<0.50	<0.50 UJ	<1.0
Carbon tetrachloride	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	<0.50	<0.50	<0.50	<0.50
Chlorobenzene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	<0.50	<0.50	<0.50	<0.50
Chloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	NA	<1.0	<1.0	<1.0	<1.0
Chloroform	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	<0.50	<0.50	<0.50	<0.50
Chloromethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	NA	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	<0.50	<0.50	<0.50	<0.50
cis-1,3-Dichloropropene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	<0.50	<0.50	<0.50	<0.50
Dibromochloromethane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	<0.50	<0.50	<0.50	<0.50
Dibromomethane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	<0.50	<0.50	<0.50	<0.50
Dichlorodifluoromethane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	<0.50	<0.50	<0.50	<0.50
Hexachlorobutadiene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	NA	<1.0	<1.0	<1.0	<1.0
Iodomethane	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	NA	<2.5	NA	<2.5	<2.5	<2.5	<2.5
Isopropylbenzene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	<0.50	<0.50	<0.50	<0.50
Methylene Chloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	NA	<1.0	<1.0	<1.0	<1.0
Methyl-tert-butyl Ether (MTBE)	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	<0.50	<0.50	<0.50	<0.50
Naphthalene	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	NA	<2.5	NA	<2.5	<2.5	<2.5	<2.5
n-Butylbenzene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	<0.50	<0.50	<0.50	<0.50
n-Propylbenzene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	<0.50	<0.50	<0.50	<0.50
p-Isopropyltoluene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	<0.50	<0.50	<0.50	<0.50
sec-Butylbenzene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	<0.50	<0.50	<0.50	<0.50
Styrene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	<0.50	<0.50	<0.50	<0.50
tert-Butylbenzene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	<0.50	<0.50	<0.50	<0.50
Tetrachloroethene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	<0.50	<0.50	<0.50	<0.50
Toluene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	<0.50	<0.50	<0.50	<0.50
trans-1,2-Dichloroethene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	<0.50	<0.50	<0.50	<0.50
trans-1,3-Dichloropropene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	<0.50	<0.50	<0.50	<0.50
Trichloroethene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	<0.50	<0.50	<0.50	<0.50
Trichlorofluoromethane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	<0.50	<0.50	<0.50	<0.50
Vinyl Acetate	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	NA	<2.0	<1.0	<1.0	<2.0
Vinyl chloride	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	<0.50	<0.50	<0.50	<0.50
Xylenes, Total	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	NA	<1.5	NA	<1.5	<1.5	<1.5	<1.5

Notes:
mg/L = milligrams per liter
ug/L = micrograms per liter
NA = Not analyzed
< = Analyte not detected above the lat
UJ = Estimated reporting limit
J = Analyte was positively identified; h

ARCADIS

Appendix F

Historical Private Well Water Quality Data

Appendix F

Historical Private Well Water Quality Data

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Sample ID	Date Collected	Perchlorate	
		EPA Method 314.0 (ug/L)	EPA Method 332.0 (ug/L)
106 W Yearling[a]	11/15/06	<2.0	2
	12/28/07	<2.0	1.3
	04/01/08	<2.0	1.1
	10/15/08	<2.0	0.75
	04/16/09	<2.0	0.65
	07/26/11	<2.0 UJ	0.57
122 W Yearling	12/28/07	<2.0	1.4
	04/01/08	<2.0	1.2
	10/13/08	<2.0	0.72
	04/16/09	<2.0	0.67
	10/30/09	<2.0	1.2
	06/17/10	<2.0	0.65 J
	02/25/11	<2.0	0.68
	07/26/11	<2.0 UJ	0.63
	01/23/12	<2.0	0.52
16 E Yearling	11/19/04	<2.0	NA
	04/29/05	<2.0	NA
	10/28/05	<2.0	NA
	05/23/06	<2.0	NA
	11/13/06	<2.0	0.68
	10/16/07	<2.0	0.64
	04/01/08[b]	<2.0	2.6
	04/01/08	<2.0	2.9
	10/15/08	<2.0	0.77
	04/17/09	<2.0	0.63
	10/30/09	<2.0	1
	06/17/10	<2.0	0.58 J
	02/24/11	<2.0	1.8
	07/26/11[b]	<2.0 UJ	0.65
	07/26/11	2.0 J	2.1
	01/23/12	2.0	1.7
	08/13/12	<2.0	0.85
18 E. Yearling[c]	10/27/05	<2.0	NA
	05/23/06	<2.0	NA
	11/14/06	<2.0	0.94
	04/04/07	<2.0	0.98
	10/16/07	<2.0	0.77
	04/01/08	<2.0	1
	10/15/08	<2.0	1.1
	04/16/09	<2.0	0.86
	10/30/09	<2.0	1.1
	06/17/10	<2.0	0.81 J
	02/23/11	<2.0	0.99
	08/13/12	<2.0	0.81
204 E. Yearling	10/27/05	<2.0	NA
	04/16/09	<2.0	0.64
	10/30/09	<2.0	1.3
	06/17/10	<2.0	0.62 J
	02/23/11	<2.0	0.89
	07/26/11	<2.0 UJ	0.72
	01/23/12	<2.0	0.58
	08/13/12	<2.0	0.79
218 E. Yearling	11/19/04	<2.0	NA
	10/28/05	<2.0	NA
	05/23/06	<2.0	NA
	11/14/06	<2.0	0.68
	04/04/07	<2.0	0.67

Appendix F

Historical Private Well Water Quality Data

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Sample ID	Date Collected	Perchlorate	
		EPA Method 314.0 (ug/L)	EPA Method 332.0 (ug/L)
218 E. Yearling (cont.)	10/16/07	<2.0	NA
	04/01/08	<2.0	1.3
	10/15/08	<2.0	0.8
	10/15/08	<2.0	0.73
	04/16/09	<2.0	0.68
	10/30/09	<2.0	1.2
	02/23/11	<2.0	1
	07/26/11	<2.0 UJ	0.69
	01/23/12	<2.0	0.77
	08/13/12	2.0 J	0.86
25825 N. 1st Place	11/17/04	<2.0	NA
	04/28/05	<2.0	NA
	10/28/05	<2.0	NA
	05/23/06	<2.0	NA
	11/14/06	<2.0	1
	04/04/07	<2.0	0.93
	10/16/07	<2.0	0.89
	04/01/08	<2.0	1.1
	10/15/08	<2.0	0.97
	04/16/09	<2.0	0.89
	10/30/09	<2.0	1.2
	06/16/10	<2.0	0.89
	02/24/11	<2.0	1
	07/27/11	<2.0 UJ	0.67
	01/23/12	<2.0	0.87
	08/13/12	<2.0 UJ	0.98
25903 N. 2nd St.[d]	11/19/04	<2.0	NA
	10/28/05	<2.0	NA
	05/23/06	<2.0	NA
	11/14/06	<2.0	0.78
	04/04/07	<2.0	0.76
	04/01/08	2.2	3.1
	10/15/08	<2.0	0.84
	04/16/09	<2.0	0.88
	10/30/09	<2.0	1.3
	06/17/10	<2.0	0.65 J
	02/24/11	<2.0	0.88
	01/24/12	<2.0	0.66
412 E. Yearling	11/19/04	<2.0	NA
	04/29/05	<2.0	NA
	10/28/05	<2.0	NA
	05/23/06	<2.0	NA
	04/01/08	<2.0	2.1
	10/15/08	<2.0	1.5
	04/16/09	<2.0	1.1
	10/30/09	<2.0	1.5
	06/17/10	<2.0	1.0 J
	02/25/11	<2.0	1.3
	07/27/11	<2.0 UJ	1.3
	01/25/12	<2.0	1.1
424 E. Yearling	01/19/08	<2.0	1.2
	04/01/08	<2.0	2.2
	10/15/08	<2.0	1.6
	04/16/09	<2.0	1.2
	10/30/09	<2.0	1.8
	06/17/10	<2.0	1.1 J
	02/25/11	<2.0	1.7

Appendix F

Historical Private Well Water Quality Data

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Sample ID	Date Collected	Perchlorate	
		EPA Method 314.0 (ug/L)	EPA Method 332.0 (ug/L)
424 E. Yearling (cont.)	07/26/11	<2.0 UJ	1.7
	01/24/12	<2.0	1.3
520 E Yearling	11/17/04	<2.0	NA
	04/28/05	<2.0	NA
	05/23/06	<2.0	NA
	11/14/06	<2.0	1.5
	04/04/07	2.4	1.3
	10/16/07	<2.0	1.4
	04/01/08	<2.0	2.2
	10/15/08	<2.0	1.3
	04/16/09	<2.0	1.3
	10/30/09	<2.0	1.9
	06/17/10	<2.0	1.2 J
	02/23/11	<2.0	1.4
	07/26/11	<2.0 UJ	1.4
	01/23/12	<2.0	1.2
	08/13/12	2.0	1.3
604/616 E Yearling	11/17/04	<2.0	NA
	04/29/05	<2.0	NA
	10/28/05	<2.0	NA
	05/23/06	<2.0	NA
	11/14/06	<2.0	1.1
	04/06/07	<2.0	1.2
	10/16/07	<2.0	1
	04/01/08	<2.0	1.5
	10/15/08	<2.0	1.1
	04/16/09	<2.0	0.98
	10/30/09	<2.0	1.6
	06/17/10	<2.0	0.91 J
	02/25/11	<2.0	1.1
	07/26/11	<2.0 UJ	1.2
	01/23/12	<2.0	0.97
	08/13/12	<2.0	0.95
8 W. Yearling	12/28/07	< 2.0	1.2
	04/04/08	<2.0	0.78
	10/15/08	<2.0	1.1
	10/30/09	<2.0	1.1
	06/17/10	<2.0	0.62 J
	02/24/11	<2.0	0.71
	07/26/11	<2.0 UJ	0.74
	01/23/12	<2.0	0.66
	08/13/12	<2.0	0.78

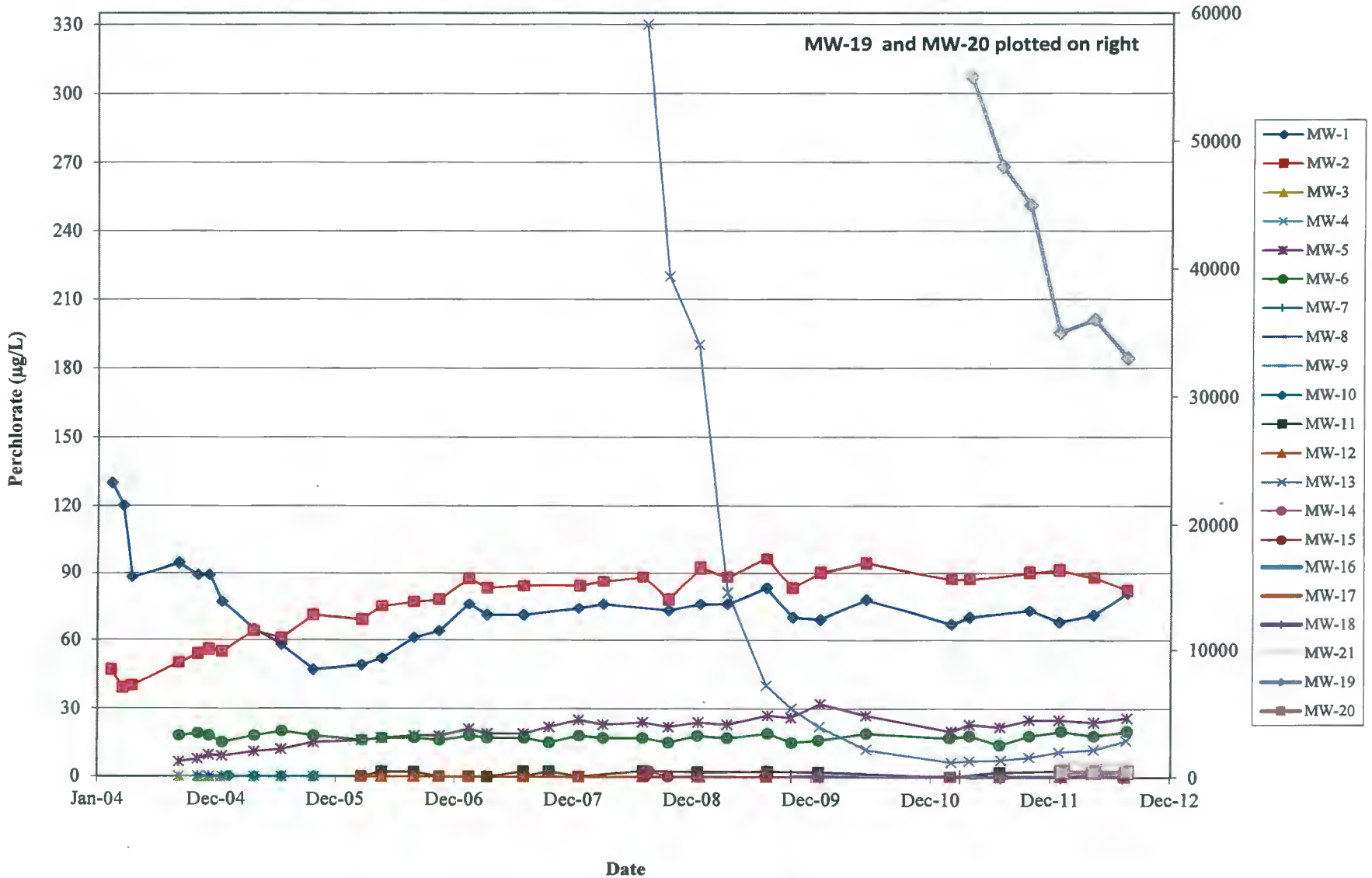
Notes:
< = Analyte not detected above the listed laboratory reporting limit
J = Analyte was positively identified; however, the result should be considered an estimated value
UJ = Estimated reporting limit
NA = Not analyzed
ug/L = micrograms per liter
[a] = not sampled during first quarter 2011; unable to gain access to well after two attempts to contact resident
[b] = Well in front yard sampled for comparison purposes, labeled as 16 E. Yearling Yard
[c] = not sampled during second quarter 2011; unable to gain access to well after two attempts to contact resident
[d] = Older well located in front yard of 218 E. Yearling that previously supplied both 204 E.Yearling and 218 E. Yearling residences before installation of new wells in back yards of both residences

ARCADIS

Appendix G

Historical Monitor Well Perchlorate Concentrations and Plots

Appendix G
Historic Monitoring Well Perchlorate Concentration Graph



ARCADIS

Appendix H

Summary of 2012 Field Data

Appendix H

2012 Field Data Summary

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Quarter Sampled	Well ID	Date	Purge Volume (gallons)[a]	Time (HH:MM)	Temperature (°C)	Conductivity (µs/cm)	pH (SU)
First Quarter 2012	MW-1	1/26/2012	23	9:10	26.31	392	7.39
	MW-1	1/26/2012	45	9:15	26.37	396	7.35
	MW-1	1/26/2012	68	9:20	26.33	397	7.31
	MW-1	1/26/2012	90	9:25	26.42	397	7.35
	MW-1	1/26/2012	113	9:30	26.46	396	7.33
	MW-1	1/26/2012	180	9:45	purge end time		
	MW-2	1/25/2012	60	10:35	26.06	434	7.41
	MW-2	1/25/2012	120	10:40	25.91	430	7.44
	MW-2	1/25/2012	300	10:55	purge end time		
	MW-3	2/1/2012	25	6:35	25.37	316	6.70
	MW-3	2/1/2012	40	6:38	dry		
	MW-4	1/25/2012	10	7:58	24.71	434	6.97
	MW-4	1/25/2012	20	8:03	25.14	428	6.94
	MW-4	1/25/2012	26	8:06	purge end time		
	MW-5	1/25/2012	30	8:55	26.18	388	7.40
	MW-5	1/25/2012	60	9:00	26.35	381	7.41
	MW-5	1/25/2012	90	9:05	26.43	378	7.49
	MW-5	1/25/2012	120	9:10	26.48	377	7.38
	MW-5	1/25/2012	150	9:15	26.36	376	7.42
	MW-5	1/25/2012	180	9:20	26.12	374	7.45
	MW-5	1/25/2012	240	9:30	purge end time		
	MW-6	2/1/2012	20	11:35	26.01	465	7.27
	MW-6	2/1/2012	32	11:38	dry		
	MW-7	1/27/2012	40	10:35	25.68	345	7.62
	MW-7	1/27/2012	80	10:40	25.42	345	7.61
	MW-7	1/27/2012	120	10:45	25.56	345	7.61
	MW-7	1/27/2012	160	10:50	25.70	347	7.61
	MW-7	1/27/2012	200	10:55	25.55	346	7.60
	MW-7	1/27/2012	280	11:05	purge end time		
	MW-8	1/30/2012	13	8:45	25.03	216	8.61
	MW-8	1/30/2012	25	8:50	26.62	218	8.71
	MW-8	1/30/2012	37	8:55	27.29	223	8.93
	MW-8	1/30/2012	50	9:00	27.44	223	8.89
	MW-8	1/30/2012	63	9:05	27.47	226	8.83
	MW-8	1/30/2012	73	9:09	dry		
	MW-9	1/27/2012	30	9:20	25.98	449	7.38
	MW-9	1/27/2012	60	9:25	25.96	450	7.38
	MW-9	1/27/2012	90	9:30	25.71	446	7.32
	MW-9	1/27/2012	120	9:35	25.58	444	7.34
	MW-9	1/27/2012	150	9:40	25.04	440	7.37
	MW-9	1/27/2012	180	9:45	25.07	439	7.40
	MW-9	1/27/2012	270	10:00	purge end time		
	MW-10	1/30/2012	13	9:58	18.29	360	7.32
	MW-10	1/30/2012	25	10:03	26.28	379	7.40
	MW-10	1/30/2012	37	10:08	26.71	382	7.44
	MW-10	1/30/2012	47	10:12	dry		
	MW-11	1/30/2012	35	12:30	26.49	613	7.26
	MW-11	1/30/2012	70	12:35	26.66	613	7.26
	MW-11	1/30/2012	105	12:40	26.69	614	7.25
	MW-11	1/30/2012	140	12:45	26.72	612	7.25
	MW-11	1/30/2012	175	12:50	26.75	611	7.25
	MW-11	1/30/2012	210	12:55	26.67	609	7.24
	MW-11	1/30/2012	259	13:02	purge end time		
	MW-13	1/24/2012	140	13:25	26.73	453	7.00
	MW-13	1/24/2012	280	13:35	26.79	452	7.18
	MW-13	1/24/2012	420	13:45	26.83	453	7.25
	MW-13	1/24/2012	560	13:55	26.72	451	7.30
	MW-13	1/24/2012	700	14:05	26.64	450	7.29
	MW-13	1/24/2012	1260	14:45	27.01	455	7.33
	MW-13	1/24/2012	1400	14:55	27.03	458	7.32
	MW-13	1/24/2012	1610	15:10	purge end time		
	MW-14	2/1/2012	140	9:00	26.81	750	6.81
	MW-14	2/1/2012	210	9:05	26.16	744	6.75
	MW-14	2/1/2012	280	9:10	26.33	742	6.76

2012 Field Data Summary

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Quarter Sampled	Well ID	Date	Purge Volume (gallons)[a]	Time (HH:MM)	Temperature (°C)	Conductivity (µs/cm)	pH (SU)
First Quarter 2012 (cont.)	MW-14	2/1/2012	350	9:15	26.42	745	6.75
	MW-14	2/1/2012	490	9:25	purge end time		
	MW-15	2/1/2012	30	9:50	26.27	485	6.94
	MW-15	2/1/2012	60	9:55	26.42	483	6.92
	MW-15	2/1/2012	90	10:00	26.50	481	6.92
	MW-15	2/1/2012	120	10:05	26.50	483	6.94
	MW-15	2/1/2012	150	10:10	26.56	483	6.92
	MW-15	2/1/2012	180	10:15	26.55	484	6.93
	MW-15	2/1/2012	210	10:20	26.55	480	6.94
	MW-15	2/1/2012	240	10:25	26.64	488	6.94
	MW-15	2/1/2012	270	10:30	26.53	481	6.95
	MW-15	2/1/2012	330	10:40	purge end time		
	MW-16	2/1/2012	70	7:10	26.84	509	6.87
	MW-16	2/1/2012	140	7:15	26.76	504	6.82
	MW-16	2/1/2012	210	7:20	26.65	511	6.84
	MW-16	2/1/2012	280	7:25	26.72	510	6.83
	MW-16	2/1/2012	350	7:30	26.82	513	6.85
	MW-16	2/1/2012	420	7:35	26.90	504	6.86
	MW-16	2/1/2012	490	7:40	pump off to dump tank		
	MW-16	2/1/2012	560	8:00	26.95	515	6.85
	MW-16	2/1/2012	630	8:05	26.86	507	6.83
	MW-16	2/1/2012	700	8:10	26.85	506	6.84
	MW-16	2/1/2012	770	8:15	26.86	511	6.86
	MW-16	2/1/2012	840	8:20	26.84	510	6.86
	MW-16	2/1/2012	910	8:25	purge end time		
	MW-17	1/30/2012	40	11:10	26.18	371	7.40
	MW-17	1/30/2012	80	11:15	27.02	377	7.40
	MW-17	1/30/2012	120	11:20	26.54	379	7.40
	MW-17	1/30/2012	136	11:22	purge end time		
	MW-18	1/30/2012	45	7:40	24.72	372	8.20
	MW-18	1/30/2012	90	7:45	25.01	370	8.17
	MW-18	1/30/2012	126	7:49	dry		
	MW-19	1/26.2012	75	11:40	24.96	455	7.57
	MW-19	1/26.2012	150	11:45	24.44	450	7.51
	MW-19	1/26.2012	225	11:50	24.06	446	7.51
	MW-19	1/26.2012	375	12:00	purge end time		
	PW-1	2/1/2012	140	13:00	27.70	470	7.46
	PW-1	2/1/2012	280	13:10	27.22	473	7.45
	PW-1	2/1/2012	420	13:20	27.30	479	7.44
	PW-1	2/1/2012	560	13:30	26.98	476	7.43
	PW-1	2/1/2012	700	13:40	26.95	475	7.42
	PW-1	2/1/2012	840	13:50	26.94	476	7.42
	PW-1	2/1/2012	980	14:00	26.92	478	7.42
	PW-1	2/1/2012	1120	14:10	26.90	476	7.42
	PW-1	2/1/2012	1260	14:20	26.89	476	7.42
	PW-1	2/1/2012	1372	14:28	purge end time		
Second Quarter 2012	MW-1	5/9/2012	11	11:48	28.46	386	7.37
	MW-1	5/9/2012	30	11:53	28.89	390	7.45
	MW-1	5/9/2012	49	11:58	28.93	387	7.45
	MW-1	5/9/2012	67	12:03	28.94	386	7.46
	MW-1	5/9/2012	86	12:08	28.95	387	7.46
	MW-1	5/9/2012	105	12:13	28.96	387	7.46
	MW-1	5/9/2012	113	12:15	28.94	388	7.46
	MW-1	5/9/2012	128	12:19	purge end time		
	MW-2	5/10/2012	24	14:30	28.25	430	7.43
	MW-2	5/10/2012	60	14:33	28.33	426	7.46
	MW-2	5/10/2012	96	14:36	28.34	426	7.47
	MW-2	5/10/2012	132	14:39	28.35	425	7.46
	MW-2	5/10/2012	168	14:42	purge end time		
	MW-5	5/10/2012	18	13:20	28.82	379	7.44
	MW-5	5/10/2012	48	13:25	28.88	378	7.50
	MW-5	5/10/2012	78	13:30	28.98	375	7.53
	MW-5	5/10/2012	108	13:35	28.99	374	7.54
	MW-5	5/10/2012	138	13:40	28.99	372	7.54

Appendix H

2012 Field Data Summary

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Quarter Sampled	Well ID	Date	Purge Volume (gallons)[a]	Time (HH:MM)	Temperature (°C)	Conductivity (µs/cm)	pH (SU)
Second Quarter 2012 (cont.)	MW-5	5/10/2012	174	13:46	purge end time		
	MW-6	5/9/2012	0	10:25	27.83	453	7.39
	MW-6	5/9/2012	11	10:28	28.22	452	7.35
	MW-6	5/9/2012	21	10:31	28.61	453	7.35
	MW-6	5/9/2012	32	10:34	28.86	453	7.36
	MW-6	5/9/2012	42	10:37	29.01	456	7.40
	MW-6	5/9/2012	53	10:40	29.15	453	7.38
	MW-6	5/9/2012	56	10:41	dry		
	MW-13	5/10/2012	35	9:56	29.38	440	7.30
	MW-13	5/10/2012	138	10:05	29.57	442	7.36
	MW-13	5/10/2012	253	10:15	29.62	440	7.35
	MW-13	5/10/2012	368	10:25	29.63	441	7.39
	MW-13	5/10/2012	483	10:35	29.63	444	7.40
	MW-13	5/10/2012	541	10:36	pump off to dump tank		
	MW-13	5/10/2012	598	11:35	29.61	441	7.41
	MW-13	5/10/2012	713	11:45	29.65	442	7.41
	MW-13	5/10/2012	828	11:55	29.67	445	7.37
	MW-13	5/10/2012	909	12:02	purge end time		
	MW-19	5/11/2012	75	15:15	28.18	391	7.52
	MW-19	5/11/2012	120	15:18	28.28	395	7.51
	MW-19	5/11/2012	165	15:21	28.31	390	7.57
	MW-19	5/11/2012	210	15:24	28.33	404	7.57
	MW-19	5/11/2012	255	15:27	purge end time		
	MW-20	5/11/2012	50	13:55	28.57	510	7.24
	MW-20	5/11/2012	100	14:00	28.62	512	7.32
	MW-20	5/11/2012	150	14:05	28.61	518	7.35
	MW-20	5/11/2012	200	14:10	28.63	521	7.34
	MW-20	5/11/2012	230	14:13	28.64	523	7.34
	MW-20	5/11/2012	300	14:20	purge end time		
	MW-21	5/10/2012	75	8:20	28.12	391	7.49
	MW-21	5/10/2012	120	8:23	28.29	386	7.48
	MW-21	5/10/2012	165	8:26	28.36	376	7.47
	MW-21	5/10/2012	210	8:29	28.37	371	7.44
	MW-21	5/10/2012	240	8:31	28.38	368	7.43
	MW-21	5/10/2012	285	8:34	28.37	367	7.43
	MW-21	5/10/2012	330	8:37	28.37	366	7.42
	MW-21	5/10/2012	345	8:38	purge end time		
	PW-1	5/9/2012	60	13:25	29.38	449	7.86
	PW-1	5/9/2012	260	13:35	29.25	433	7.94
	PW-1	5/9/2012	320	14:03	28.74	431	7.96
	PW-1	5/9/2012	520	14:13	29.27	443	7.88
	PW-1	5/9/2012	720	14:23	29.20	439	7.90
	PW-1	5/9/2012	920	14:33	29.16	445	7.84
	PW-1	5/9/2012	960	14:35	pump off to dump tank		
	PW-1	5/9/2012	1000	15:00	28.78	446	7.85
	PW-1	5/9/2012	1200	15:10	29.31	455	7.80
	PW-1	5/9/2012	1400	15:20	29.25	455	7.75
	PW-1	5/9/2012	1600	15:30	29.26	450	7.81
	PW-1	5/9/2012	1640	15:32	purge end time		
Third Quarter 2012	MW-1	8/19/2012	20	17:05	28.09	377	7.40
	MW-1	8/19/2012	40	17:10	28.33	379	7.50
	MW-1	8/19/2012	60	17:15	28.37	377	7.51
	MW-1	8/19/2012	80	17:20	28.38	376	7.52
	MW-1	8/19/2012	100	17:25	28.39	378	7.52
	MW-1	8/19/2012	120	17:30	28.39	378	7.52
	MW-1	8/19/2012	160	17:40	purge end time		
	MW-2	8/19/2012	31	18:25	27.80	419	7.55
	MW-2	8/19/2012	62	18:30	28.11	414	7.61
	MW-2	8/19/2012	93	18:35	28.12	412	7.63
	MW-2	8/19/2012	124	18:40	28.14	411	7.63
	MW-2	8/19/2012	174	18:48	purge end time		
	MW-3	8/7/2012	14	14:28	28.44	326	7.46
	MW-3	8/7/2012	27	14:31	28.83	328	7.54
	MW-3	8/7/2012	40	14:34	29.04	330	7.54

Appendix H

2012 Field Data Summary

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Quarter Sampled	Well ID	Date	Purge Volume (gallons)[a]	Time (HH:MM)	Temperature (°C)	Conductivity (µs/cm)	pH (SU)
Third Quarter 2012 (cont.)	MW-3	8/7/2012	54	14:37	29.05	334	7.54
	MW-3	8/7/2012	67	14:40	dry		
	MW-4	8/7/2012	7	15:31	28.31	447	7.45
	MW-4	8/7/2012	13	15:34	28.53	451	7.33
	MW-4	8/7/2012	19	15:37	29.60	462	7.39
	MW-4	8/7/2012	21	15:38	dry		
	MW-5	8/19/2012	28	16:00	28.36	363	7.68
	MW-5	8/19/2012	55	16:05	28.36	363	7.69
	MW-5	8/19/2012	83	16:10	28.40	363	7.71
	MW-5	8/19/2012	110	16:15	28.40	362	7.71
	MW-5	8/19/2012	138	16:20	28.41	361	7.71
	MW-5	8/19/2012	165	16:25	28.39	361	7.71
	MW-5	8/19/2012	176	16:27	purge end time		
	MW-6	8/18/2012	40	15:05	27.77	422	7.51
	MW-6	8/18/2012	80	15:10	28.34	422	7.55
	MW-6	8/18/2012	120	15:15	28.66	418	7.51
	MW-6	8/18/2012	128	15:16	dry		
	MW-7	8/7/2012	28	8:05	27.66	354	7.72
	MW-7	8/7/2012	55	8:10	27.79	355	7.71
	MW-7	8/7/2012	82	8:15	27.85	356	7.70
	MW-7	8/7/2012	110	8:20	27.88	356	7.70
	MW-7	8/7/2012	138	8:25	27.89	356	7.70
	MW-7	8/7/2012	165	8:30	27.90	356	7.69
	MW-7	8/7/2012	193	8:35	purge end time		
	MW-8	8/7/2012	15	10:40	28.74	223	8.81
	MW-8	8/7/2012	30	10:45	29.20	226	9.08
	MW-8	8/7/2012	45	10:50	29.54	231	9.01
	MW-8	8/7/2012	55	10:55	29.75	234	8.91
	MW-8	8/7/2012	65	11:00	29.99	238	8.90
	MW-8	8/7/2012	75	11:05	30.32	240	8.92
	MW-8	8/7/2012	85	11:10	30.53	242	8.91
	MW-8	8/7/2012	95	11:15	30.66	245	8.90
	MW-8	8/7/2012	105	11:20	30.62	246	8.90
	MW-8	8/7/2012	115	11:25	30.58	248	8.87
	MW-8	8/7/2012	123	11:29	30.52	250	8.86
	MW-8	8/7/2012	125	11:30	dry		
	MW-9	8/9/2012	30	12:30	28.41	434	7.38
	MW-9	8/9/2012	60	12:35	28.49	432	7.44
	MW-9	8/9/2012	90	12:40	28.55	431	7.46
	MW-9	8/9/2012	120	12:45	28.55	430	7.47
	MW-9	8/9/2012	150	12:50	28.52	427	7.47
	MW-9	8/9/2012	180	12:55	28.56	427	7.47
	MW-9	8/9/2012	210	13:00	28.57	425	7.48
	MW-9	8/9/2012	228	13:03	purge end time		
	MW-10	8/7/2012	13	13:05	28.92	387	7.40
	MW-10	8/7/2012	25	13:10	29.48	391	7.41
	MW-10	8/7/2012	37	13:15	30.12	399	7.46
	MW-10	8/7/2012	50	13:20	30.13	396	7.52
	MW-10	8/7/2012	62	13:25	29.92	397	7.51
	MW-10	8/7/2012	67	13:27	dry		
	MW-11	8/13/2012	29	15:35	28.49	587	7.40
	MW-11	8/13/2012	57	15:40	28.61	589	7.45
	MW-11	8/13/2012	85	15:45	28.63	591	7.45
	MW-11	8/13/2012	114	15:50	28.60	591	7.44
	MW-11	8/13/2012	143	15:55	28.60	590	7.43
	MW-11	8/13/2012	171	16:00	28.57	590	7.43
	MW-11	8/13/2012	199	16:05	28.64	591	7.43
	MW-11	8/13/2012	228	16:10	28.63	590	7.43
	MW-11	8/13/2012	245	16:13	purge end time		
	MW-12	8/13/2012	70	12:00	28.97	430	7.37
	MW-12	8/13/2012	120	12:05	28.19	431	7.37

2012 Field Data Summary

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Quarter Sampled	Well ID	Date	Purge Volume (gallons)[a]	Time (HH:MM)	Temperature (°C)	Conductivity (µs/cm)	pH (SU)
Third Quarter 2012 (cont.)	MW-12	8/13/2012	170	12:10	29.51	433	7.38
	MW-12	8/13/2012	220	12:15	29.56	430	7.43
	MW-12	8/13/2012	270	12:20	29.58	424	7.45
	MW-12	8/13/2012	320	12:25	29.60	419	7.47
	MW-12	8/13/2012	370	12:30	29.58	417	7.47
	MW-12	8/13/2012	420	12:35	29.58	415	7.48
	MW-12	8/13/2012	470	12:40	29.56	414	7.48
	MW-12	8/13/2012	520	12:45	29.56	413	7.49
	MW-12	8/13/2012	530	12:46	pump off to dump tank		
	MW-12	8/13/2012	580	13:40	29.23	412	7.49
	MW-12	8/13/2012	630	13:45	29.34	411	7.49
	MW-12	8/13/2012	680	13:50	29.46	410	7.49
	MW-12	8/13/2012	730	13:55	29.48	410	7.49
	MW-12	8/13/2012	780	14:00	29.49	410	7.49
	MW-12	8/13/2012	830	14:05	29.48	410	7.49
	MW-12	8/13/2012	880	14:10	29.49	409	7.49
	MW-12	8/13/2012	910	14:13	purge end time		
	MW-13	8/17/2012	60	13:35	29.14	421	7.49
	MW-13	8/17/2012	120	13:40	29.16	424	7.49
	MW-13	8/17/2012	180	13:45	29.18	425	7.50
	MW-13	8/17/2012	240	13:50	29.19	426	7.51
	MW-13	8/17/2012	300	13:55	29.21	426	7.52
	MW-13	8/17/2012	360	14:00	29.22	427	7.52
	MW-13	8/17/2012	420	14:05	29.22	427	7.53
	MW-13	8/17/2012	480	14:10	29.23	427	7.53
	MW-13	8/17/2012	540	14:15	29.23	427	7.53
	MW-13	8/17/2012	552	14:16	pump off to dump tank		
	MW-13	8/17/2012	564	15:38	29.17	427	7.47
	MW-13	8/17/2012	644	15:45	29.18	430	7.54
	MW-13	8/17/2012	702	15:50	29.21	426	7.54
	MW-13	8/17/2012	759	15:55	29.22	427	7.54
	MW-13	8/17/2012	816	16:00	29.22	427	7.54
	MW-13	8/17/2012	874	16:05	29.25	427	7.55
	MW-13	8/17/2012	932	16:10	29.23	427	7.54
	MW-13	8/17/2012	954	16:12	purge end time		
	MW-14	8/10/2012	28	10:35	29.32	718	7.22
	MW-14	8/10/2012	55	10:40	29.30	719	7.22
	MW-14	8/10/2012	82	10:45	29.27	719	7.22
	MW-14	8/10/2012	110	10:50	29.24	719	7.22
	MW-14	8/10/2012	138	10:55	29.28	719	7.22
	MW-14	8/10/2012	154	10:58	dry		
	MW-15	8/9/2012	46	9:20	28.61	457	7.29
	MW-15	8/9/2012	78	9:25	28.71	458	7.32
	MW-15	8/9/2012	111	9:30	28.73	459	7.33
	MW-15	8/9/2012	143	9:35	28.75	460	7.32
	MW-15	8/9/2012	168	9:40	28.75	459	7.33
	MW-15	8/9/2012	193	9:45	28.75	459	7.34
	MW-15	8/9/2012	218	9:50	28.76	459	7.33
	MW-15	8/9/2012	243	9:55	28.76	460	7.33
	MW-15	8/9/2012	268	10:00	28.76	460	7.33
	MW-15	8/9/2012	288	10:04	28.77	460	7.34
	MW-15	8/9/2012	303	10:07	purge end time		
	MW-16	8/10/2012	60	13:20	29.43	477	7.33
	MW-16	8/10/2012	120	13:25	29.40	479	7.32
	MW-16	8/10/2012	180	13:30	29.42	479	7.33
	MW-16	8/10/2012	230	13:35	29.53	480	7.34
	MW-16	8/10/2012	280	13:40	29.68	480	7.35
	MW-16	8/10/2012	330	13:45	29.83	480	7.36
	MW-16	8/10/2012	378	13:50	29.95	480	7.37
	MW-16	8/10/2012	425	13:55	30.05	480	7.37
	MW-16	8/10/2012	473	14:00	30.10	481	7.38
	MW-16	8/10/2012	515	14:05	30.15	482	7.38

2012 Field Data Summary

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

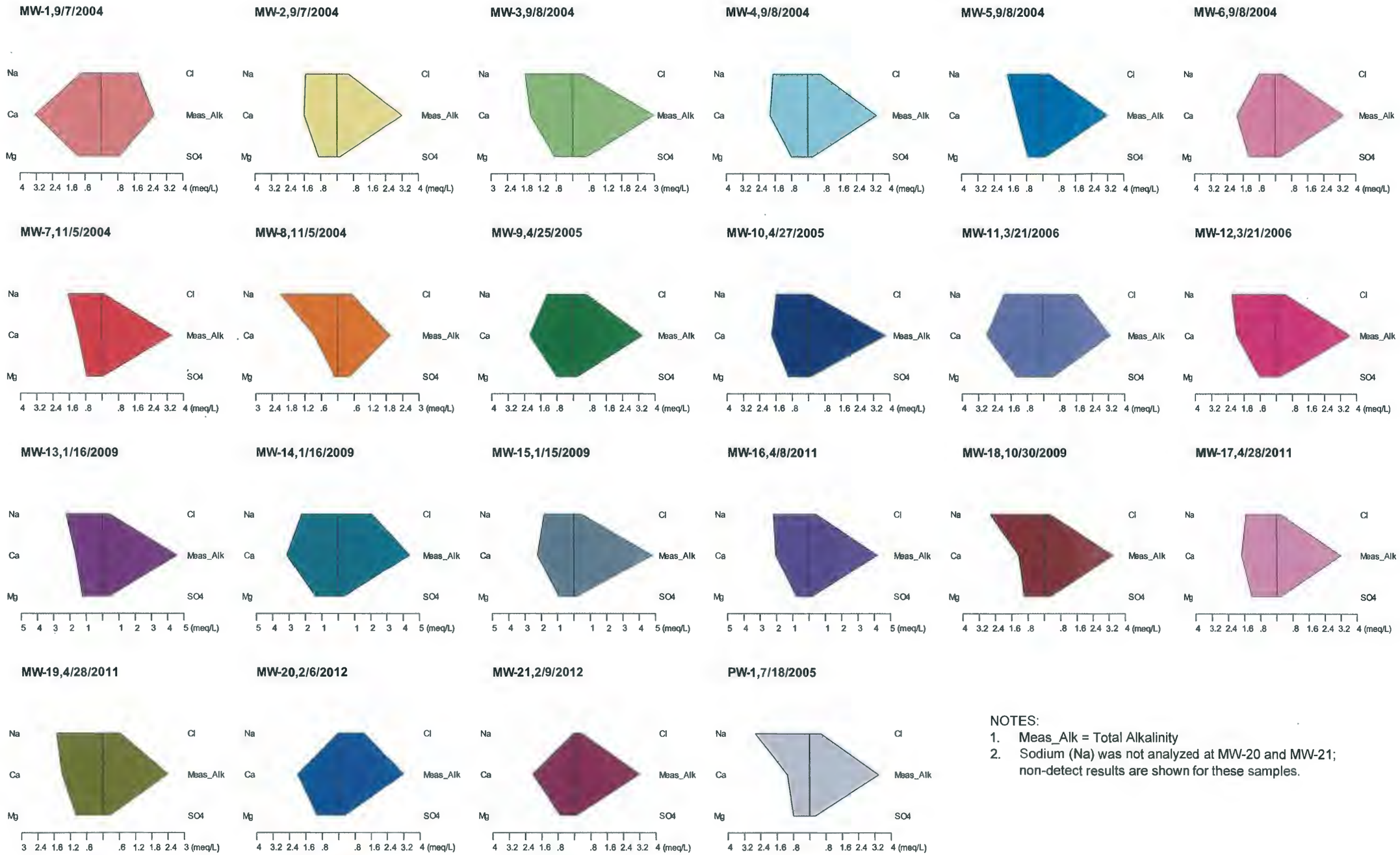
Quarter Sampled	Well ID	Date	Purge Volume (gallons)[a]	Time (HH:MM)	Temperature (°C)	Conductivity (µs/cm)	pH (SU)
Third Quarter 2012 (cont.)	MW-16	8/10/2012	558	14:10	30.16	485	7.39
	MW-16	8/10/2012	600	14:15	30.18	485	7.41
	MW-16	8/10/2012	643	14:20	30.15	484	7.39
	MW-16	8/10/2012	651	14:21	pump off to dump tank		
	MW-16	8/10/2012	651	15:25	29.66	227	7.44
	MW-16	8/10/2012	694	15:30	29.71	334	7.45
	MW-16	8/10/2012	749	15:35	29.71	446	7.43
	MW-16	8/10/2012	804	15:40	29.88	475	7.43
	MW-16	8/10/2012	859	15:45	29.98	474	7.42
	MW-16	8/10/2012	914	15:50	30.07	471	7.42
	MW-16	8/10/2012	961	15:55	30.13	472	7.42
	MW-16	8/10/2012	1008	16:00	30.13	471	7.42
	MW-16	8/10/2012	1036	16:03	purge end time		
	MW-17	8/9/2012	38	11:25	28.20	351	7.48
	MW-17	8/9/2012	63	11:30	28.35	354	7.54
	MW-17	8/9/2012	88	11:35	28.39	353	7.55
	MW-17	8/9/2012	103	11:38	dry		
	MW-18	8/7/2012	35	9:40	27.61	389	7.87
	MW-18	8/7/2012	70	9:45	27.61	390	8.01
	MW-18	8/7/2012	105	9:50	27.78	390	8.25
	MW-18	8/7/2012	119	9:52	dry		
	MW-19	8/17/2012	38	20:55	27.81	401	7.68
	MW-19	8/17/2012	75	21:00	28.08	438	7.70
	MW-19	8/17/2012	113	21:05	28.12	441	7.72
	MW-19	8/17/2012	150	21:10	28.14	443	7.72
	MW-19	8/17/2012	187	21:15	28.14	442	7.71
	MW-19	8/17/2012	225	21:20	28.15	444	7.70
	MW-19	8/17/2012	247	21:23	purge end time		
	MW-20	8/19/2012	35	19:45	27.59	512	7.36
	MW-20	8/19/2012	70	19:50	28.82	492	7.50
	MW-20	8/19/2012	105	19:55	28.94	498	7.52
	MW-20	8/19/2012	140	20:00	28.76	495	7.53
	MW-20	8/19/2012	175	20:05	28.41	418	7.55
	MW-20	8/19/2012	210	20:10	28.38	407	7.56
	MW-20	8/19/2012	245	20:15	28.38	418	7.56
	MW-20	8/19/2012	259	20:17	purge end time		
	MW-21	8/16/2012	58	18:12	27.95	363	7.48
	MW-21	8/16/2012	104	18:16	28.00	359	7.51
	MW-21	8/16/2012	150	18:20	28.03	357	7.52
	MW-21	8/16/2012	195	18:24	28.04	354	7.53
	MW-21	8/16/2012	241	18:28	28.05	352	7.53
	MW-21	8/16/2012	288	18:32	28.05	353	7.53
	MW-21	8/16/2012	334	18:36	28.05	352	7.52
	MW-21	8/16/2012	380	18:40	28.05	352	7.52
	MW-21	8/16/2012	426	18:44	28.06	352	7.52
	MW-21	8/16/2012	449	18:46	purge end time		
	PW-1	8/16/2012	143	13:55	28.85	422	7.95
	PW-1	8/16/2012	286	14:05	28.82	426	7.93
	PW-1	8/16/2012	429	14:15	28.75	429	7.91
	PW-1	8/16/2012	501	14:20	pump off to dump tank		
	PW-1	8/16/2012	626	15:25	28.96	443	7.85
	PW-1	8/16/2012	751	15:35	28.84	444	7.84
	PW-1	8/16/2012	876	15:45	28.82	437	7.87
	PW-1	8/16/2012	1001	15:55	28.83	437	7.86
	PW-1	8/16/2012	1013	15:56	pump off to dump tank		
	PW-1	8/16/2012	1105	16:35	29.03	437	7.86
	PW-1	8/16/2012	1220	16:45	28.86	448	7.81
	PW-1	8/16/2012	1278	16:50	28.85	446	7.81
	PW-1	8/16/2012	1335	16:55	28.84	441	7.82
	PW-1	8/16/2012	1393	17:00	28.86	441	7.82
	PW-1	8/16/2012	1450	17:05	28.84	442	7.85
	PW-1	8/16/2012	1565	17:15	purge end time		

Notes:
[a] = Calculated purge volumes are approximate
HH:MM = Hour : Minute
°C = Degrees Celsius
µs/cm = Microsiemen per centimeter
SU = Standard unit

ARCADIS

Appendix I

Piper and Stiff Diagrams for Monitor Wells



NOTES:
1. Meas_Alk = Total Alkalinity
2. Sodium (Na) was not analyzed at MW-20 and MW-21; non-detect results are shown for these samples.

ARCADIS
410 N. 44th ST. Suite 1000
Phoenix, AZ 85008
Tel: 602.438.0883
Fax: 602.438.0102
www.arcadis-us.com

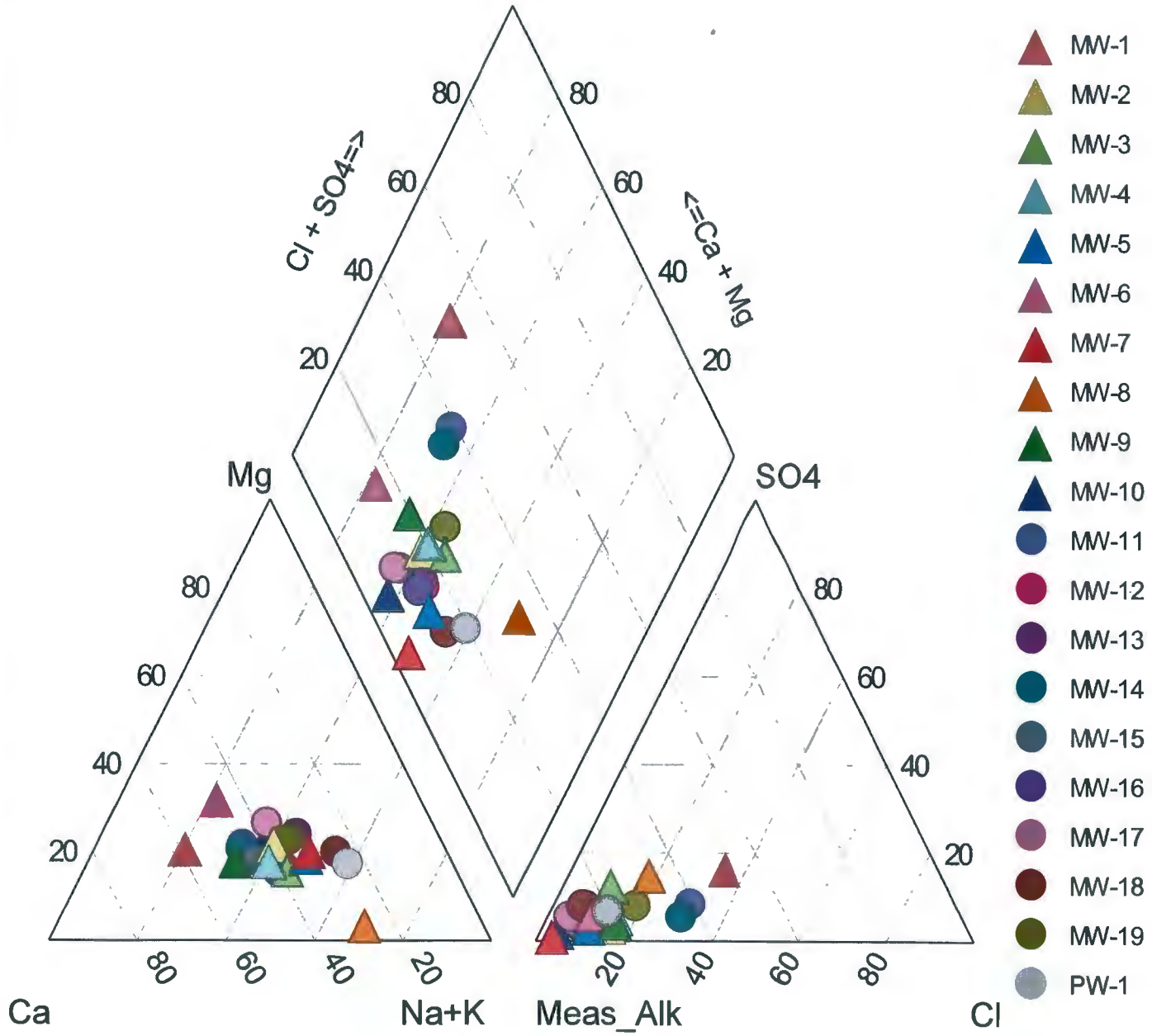
copyright© 2013

PROJECT TITLE

UTC AEROSPACE SYSTEMS
FORMER UPCO FACILITY
PHOENIX, ARIZONA

PROJECT MANAGER	DEPT MANAGER	DESIGNER	CHECKED
R. MONGRAIN	R. MONGRAIN	R. KOSCIOLEK	K. NOONAN
SHEET TITLE: 2012 ANNUAL MONITORING REPORT MONITORING WELL STIFF DIAGRAMS		PHASE/TASK NUMBER .0001.00231	DRAWN BY R. KOSCIOLEK
		PROJECT NUMBER 03994018	DRAWING NUMBER I-1

Acad Version : R18.1s (LMS Tech)
User Name : RKosciolek
Date\Time : Tue, 19 Feb 2013 - 7:16am
Path\Name : G:\Projects\3994003\R_Reports\Annual Groundwater Reports\297 2012 Groundwater Report\Draft\Appendices\Appendix I - Piper and Stiff1-1.dwg



NOTE:
Meas_Alk = Total Alkalinity

copyright© 2013

ARCADIS
410 N. 44th ST. Suite 1000
Phoenix, AZ 85008
Tel: 602.438.0883
Fax: 602.438.0102
www.arcadis-us.com

PROJECT TITLE	PROJECT MANAGER	DEPT MANAGER	DESIGNER	CHECKED
UTC AEROSPACE SYSTEMS FORMER UPCO FACILITY PHOENIX, ARIZONA	R. MONGRAIN	R. MONGRAIN	R. KOSCIOLEK	K. NOONAN
	SHEET TITLE 2012 ANNUAL MONITORING REPORT MONITORING WELL PIPER DIAGRAM		PHASE/TASK NUMBER .0001.00231	DRAWN BY R. KOSCIOLEK
			PROJECT NUMBER 03994018	DRAWING NUMBER I-2

ARCADIS

Appendix J

2012 Data Verification Summaries

Table J-1

Sampling and Analysis Schedule - First Quarter 2012
UPCO Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Sample ID	Lab ID	Collected	Sample Type	Parameters
MW-13	PVA1489-01	1/24/2012	N	VOCs, 1,4-dioxane, total metals, perchlorate, chloride, nitrate, sulfate, hardness, alkalinity, BOD, COD, TDS, TOC
	PVA1489-02	1/24/2012	N	Dissolved metals
TB012412	PVA1489-03	1/24/2012	TB	VOCs
FD012412	PVA1489-04	1/24/2012	FD of MW-13	VOCs, 1,4-dioxane, total metals, perchlorate, chloride, nitrate, sulfate, hardness, alkalinity, BOD, COD, TDS, TOC
	PVA1489-05	1/24/2012	FD of MW-13	Dissolved metals
MW-2	PVA1545-01	1/25/2012	N	VOCs, 1,4-dioxane, total metals, perchlorate, chloride, nitrate, sulfate, hardness, alkalinity, BOD, COD, TDS, TOC
	PVA1545-02	1/25/2012	N	Dissolved metals
MW-5	PVA1545-03	1/25/2012	N	VOCs, 1,4-dioxane, total metals, perchlorate, chloride, nitrate, sulfate, hardness, alkalinity, BOD, COD, TDS, TOC
	PVA1545-04	1/25/2012	N	Dissolved metals
MW-1	PVA1690-01	1/26/2012	N	VOCs, 1,4-dioxane, total metals, perchlorate, chloride, nitrate, sulfate, hardness, alkalinity, BOD, COD, TDS, TOC
	PVA1690-02	1/26/2012	N	Dissolved metals
MW-4	PVA1690-03	1/26/2012	N	VOCs, 1,4-dioxane, total metals, perchlorate, chloride, nitrate, sulfate, hardness, alkalinity, BOD, COD, TDS, TOC
	PVA1690-04	1/26/2012	N	Dissolved metals
MW-19	PVA1690-05	1/26/2012	N	VOCs, 1,4-dioxane, total metals, perchlorate, chloride, nitrate, sulfate, hardness, alkalinity, BOD, COD, TDS, TOC
	PVA1690-06	1/26/2012	N	Dissolved metals
FD012612	PVA1690-07	1/26/2012	FD of X	VOCs, 1,4-dioxane, total metals, perchlorate
TB012612	PVA1690-09	1/26/2012	TB	VOCs
MW-9	PVA1773-01	1/27/2012	N	VOCs, 1,4-dioxane, total metals, perchlorate
MW-7	PVA1773-03	1/27/2012	N	VOCs, 1,4-dioxane, total metals, perchlorate
Trip Blank	PVA1773-05	1/27/2012	TB	VOCs
MW-11	PVA1928-01	1/30/2012	N	VOCs, 1,4-dioxane, total metals, perchlorate
MW-18	PVA1928-02	1/31/2012	N	VOCs, 1,4-dioxane, total metals, perchlorate
MW-8	PVA1928-03	1/31/2012	N	VOCs, 1,4-dioxane, total metals, perchlorate
MW-10	PVA1928-04	1/31/2012	N	VOCs, 1,4-dioxane, total metals, perchlorate
MW-17	PVA1928-05	1/31/2012	N	VOCs, 1,4-dioxane, total metals, perchlorate
TB013112	PVA1928-06	1/31/2012	TB	VOCs
MW-16	PVB0114-01	2/1/2012	N	VOCs, 1,4-dioxane, total metals, perchlorate
MW-15	PVB0114-02	2/1/2012	N	VOCs, 1,4-dioxane, total metals, perchlorate
MW-14	PVB0114-03	2/1/2012	N	VOCs, 1,4-dioxane, total metals, perchlorate
MW-3	PVB0114-04	2/1/2012	N	VOCs, 1,4-dioxane, total metals, perchlorate
PW-1	PVB0114-05	2/1/2012	N	VOCs, 1,4-dioxane, total metals, perchlorate
MW-6	PVB0114-06	2/1/2012	N	VOCs, 1,4-dioxane, total metals, perchlorate
TB020112	PVB0114-07	2/1/2012	TB	VOCs
MW-12	PVB0277-01	2/3/2012	N	VOCs, 1,4-dioxane, total metals, perchlorate
TB020312	PVB0277-02	2/3/2012	TB	VOCs

Table J-1

Sampling and Analysis Schedule - First Quarter 2012
UPCO Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Sample ID	Lab ID	Collected	Sample Type	Parameters
MW-20	PVB0378-01	2/6/2012	N	1,4-dioxane, total metals, perchlorate, chloride, fluoride, nitrate, nitrite, sulfate, hardness, alkalinity, BOD, TDS, TOC
	PVB0378-02	2/6/2012	N	Dissolved metals
TB020612	PVB0378-03	2/6/2012	TB	TOC
MW-21	PVB0717-01	2/9/2012	N	VOCs, 1,4-dioxane, total metals, perchlorate, chloride, nitrate, sulfate, hardness, alkalinity, BOD, COD, TDS, TOC
	PVB0717-02	2/9/2012	N	Dissolved metals
Trip Blank	PVB0717-03	2/9/2012	TB	VOCs

Notes:

N = normal field sample

FD = field duplicate

TB = trip blank

VOCs = volatile organic compounds by EPA Method 8260B

BOD = Biochemical Oxygen Demand by SM 5210B

COD = Chemical Oxygen Demand by SM 5220D

TDS = Total Dissolved Solids by SM 2540C

TOC = Total Organic Carbon by SM5310B

Total metals = arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver

Samples MW-1, MW-2, MW-4, MW-5, MW-13, MW-19, MW-20, MW-21, FD012412, and FD012612 were aso analyzed for calcium, iron, magnesium, and manganese

Dissolved metals = iron and manganese

Perchlorate = EPA methods 314.0 and 332.0

Samples MW-1, MW-2, MW-4, MW-5, MW-13, MW-19, MW-20, MW-21, FD012412, and FD012612 were only analyzed by EPA Method 314.0

Table J-2

Qualified Results - First Quarter 2012
UPCO Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Sample ID	Analyte	Result	Units	Data Qualifier	Comments
MW-11	Carbon disulfide	<0.50	ug/l	UJ	Qualified due to MS/MSD RPD exceedance
MW-11	1,4-Dioxane	<2.0	ug/l	UJ	Qualified due to holding time exceedance
MW-18	Carbon disulfide	<0.50	ug/l	UJ	Qualified due to MS/MSD RPD exceedance
MW-8	Carbon disulfide	<0.50	ug/l	UJ	Qualified due to MS/MSD RPD exceedance and LCS/LCS duplicate RPD exceedance
MW-10	Carbon disulfide	<0.50	ug/l	UJ	Qualified due to MS/MSD RPD exceedance and LCS/LCS duplicate RPD exceedance
MW-17	Carbon disulfide	<0.50	ug/l	UJ	Qualified due to MS/MSD RPD exceedance and LCS/LCS duplicate RPD exceedance
MW-16	Carbon disulfide	<0.50	ug/l	UJ	Qualified due to MS/MSD RPD exceedance and LCS/LCS duplicate RPD exceedance
MW-15	Carbon disulfide	<0.50	ug/l	UJ	Qualified due to MS/MSD RPD exceedance
MW-14	Carbon disulfide	<0.50	ug/l	UJ	Qualified due to MS/MSD RPD exceedance
MW-3	Carbon disulfide	<0.50	ug/l	UJ	Qualified due to MS/MSD RPD exceedance
PW-1	Carbon disulfide	<0.50	ug/l	UJ	Qualified due to MS/MSD RPD exceedance
MW-6	Carbon disulfide	<0.50	ug/l	UJ	Qualified due to MS/MSD RPD exceedance
MW-16	Silver	<0.0010	mg/l	UJ	Qualified due to MS/MSD recoveries
MW-15	Silver	<0.0010	mg/l	UJ	Qualified due to MS/MSD recoveries
MW-14	Silver	<0.0010	mg/l	UJ	Qualified due to MS/MSD recoveries
MW-3	Silver	<0.0010	mg/l	UJ	Qualified due to MS/MSD recoveries
PW-1	Silver	<0.0010	mg/l	UJ	Qualified due to MS/MSD recoveries
MW-6	Silver	<0.0010	mg/l	UJ	Qualified due to MS/MSD recoveries
MW-6	Perchlorate	14	ug/l	J	Qualified due to MS/MSD recoveries
MW-12	Carbon disulfide	<0.50	ug/l	UJ	Qualified due to MS/MSD RPD exceedance
MW-12	Perchlorate	0.67	ug/l	J	Qualified due to MS/MSD recoveries

Notes:
ug/l = microgram per liter
mg/l = milligram per liter
J = estimated result
UJ = estimated detection limit
MS/MSD = matrix spike/matrix spike duplicate samples
LCS = laboratory control spike samples

Table J-3

Field Duplicate Summary - First Quarter 2012
UPCO Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Sample ID / Field Duplicate ID	Parameters	Sample Result	Field Duplicate	RPD (%)
MW-13/ FD012412	**VOCs (ug/l)**			
	All analytes	ND	ND	NC
	1,4-Dioxane	ND	ND	NC
	Metals (mg/l)			
	Arsenic	0.0050	0.0051	<1.0
	Barium	0.057	0.059	3.4
	Cadmium	<0.0010	<0.0010	NC
	Calcium	32	32	<1.0
	Chromium	0.0017	0.0019	11
	Iron	1.3	1.4	7.4
	Lead	<0.0010	<0.0010	NC
	Magnesium	14	14	<1.0
	Manganese	0.023	0.024	<1.0
	Mercury	<0.00020	<0.00020	NC
	Selenium	<0.0020	<0.0020	NC
	Silver	<0.0010	<0.0010	NC
	Dissolved Metals (mg/l)			
	Iron	0.100	0.092	8.3
	Manganese	<0.010	<0.010	NC
	Inorganics (mg/l)			
	Chloride	15	15	<1.0
	Nitrate-N	1.2	1.2	<1.0
	Sulfate	10	10	<1.0
	Perchlorate (ug/l)	11	11	<1.0
	Alkalinity (mg/l)			
	Alkalinity as CaCO3	200	200	<1.0
	Bicarbonate Alkalinity as CaCO3	200	200	<1.0
	Carbonate Alkalinity as CaCO3	<6.0	<6.0	NC
	Hydroxide Alkalinity as CaCO3	<6.0	<6.0	NC
	Alkalinity, Phenolphthalein	<6.0	<6.0	NC
	Other Analyses (mg/l)			
	Chemical Oxygen Demand	<20	<20	NC
	Total Organic Carbon	<1.0	<1.0	NC
	Total Dissolved Solids	260	270	3.8
	Total Hardness	140	140	<1.0

Table J-3

Field Duplicate Summary - First Quarter 2012
UPCO Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Sample ID / Field Duplicate ID	Parameters	Sample Result	Field Duplicate	RPD (%)
MW-1/ FD012612	**VOCs (ug/l)**			
	All analytes	ND	ND	NC
	1,4-Dioxane	ND	ND	NC
	Metals (mg/l)			
	Arsenic	0.010	0.010	<1.0
	Barium	0.041	0.042	2.4
	Cadmium	<0.0010	<0.0010	NC
	Chromium	0.0027	0.0028	3.6
	Lead	<0.0010	<0.0010	NC
	Mercury	<0.00020	<0.00020	NC
	Selenium	<0.0020	<0.0020	NC
	Silver	<0.0010	<0.0010	NC
	Inorganics (mg/l)			
	Perchlorate (ug/l)	68	70	2.9

Notes:
RPD = Relative percent difference; [(difference)/(average)]*100
ND = No analytes detected
NC = Not calculated
Field duplicate RPD acceptance limits is 25 percent for results greater than 5 times the reporting limit; for res less than 5 times the reporting limit, the difference between sample and field duplicate results should be less than the reporting limit

Table J-4

Completeness Summary - First Quarter 2012
UPCO Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Parameters	Total Number of Samples	Number in Contractual Compliance	Percent Contractual Compliance	Number of Usable Results	Percent Technical Compliance
Total Metals					
Arsenic	22	22	100	22	100
Barium	22	22	100	22	100
Cadmium	22	22	100	22	100
Calcium	8	8	100	8	100
Chromium	22	22	100	22	100
Iron	8	8	100	8	100
Lead	22	22	100	22	100
Magnesium	8	8	100	8	100
Manganese	8	8	100	8	100
Mercury	22	22	100	22	100
Selenium	22	22	100	22	100
Silver	22	16[a]	73	22	100
Dissolved Metals					
Iron	8	8	100	8	100
Manganese	8	8	100	8	100
General Chemistry					
Alkalinity	8	8	100	8	100
Biochemical Oxygen Demand	8	8	100	8	100
Chemical Oxygen Demand	8	8	100	8	100
Total Dissolved Solids	8	8	100	8	100
Total Organic Carbon	8	8	100	8	100
Total Hardness	8	8	100	8	100
Inorganics					
Chloride	8	8	100	8	100
Nitrate-N	8	8	100	8	100
Nitrite-N	8	8	100	8	100
Fluoride	8	8	100	8	100
Perchlorate (Method 314.0)	22	22	100	22	100
Perchlorate (Method 332.0)	16	14[a]	88	16	100
Organics					
VOCs	1386	1374[b]	99	1386	100
1,4-Dioxane	22	21[c]	95	22	100
TOTAL	**1750**	**1729**	**99**	**1750**	**100**

[a] Qualified due to MS/MSD recoveries
[b] Qualified due to MS/MSD RPD exceedance and/or LCS/LCS duplicate RPD exceedance
[c] Qualified due to holding time exceedance

Notes:
Number of samples used in completeness calculations includes field samples, but not field duplicates or blanks.
Percent Contractual Compliance = (Number of contract compliant results/Number of reported results) * 100
Percent Technical Compliance = (Number of usable results/Number of reported results) * 100
RPD = relative percent difference

Table J-5

Sampling and Analysis Schedule - First Quarter 2012
Private Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Sample ID	Lab ID	Collected	Sample Type	Parameters
122 W. Yearling	PVA1407-01	1/23/2012	N	Perchlorate by EPA Method 314.0
	PVA1408-01	1/23/2012	N	Perchlorate by EPA Method 332.0
16 E. Yearling	PVA1405-01	1/23/2012	N	Perchlorate by EPA Method 314.0
	PVA1406-01	1/23/2012	N	Perchlorate by EPA Method 332.0
204 E. Yearling	PVA1399-01	1/23/2012	N	Perchlorate by EPA Method 314.0
	PVA1400-01	1/23/2012	N	Perchlorate by EPA Method 332.0
218 E. Yearling	PVA1401-01	1/23/2012	N	Perchlorate by EPA Method 314.0
	PVA1402-01	1/23/2012	N	Perchlorate by EPA Method 332.0
25903 N. 2nd Place	PVA1570-01	1/24/2012	N	Perchlorate by EPA Method 314.0
	PVA1548-01	1/24/2012	N	Perchlorate by EPA Method 332.0
424 E. Yearling	PVA1572-01	1/24/2012	N	Perchlorate by EPA Method 314.0
	PVA1557-01	1/24/2012	N	Perchlorate by EPA Method 332.0
520 E. Yearling	PVA1397-01	1/23/2012	N	Perchlorate by EPA Method 314.0
	PVA1398-01	1/23/2012	N	Perchlorate by EPA Method 332.0
604 E. Yearling	PVA1395-01	1/23/2012	N	Perchlorate by EPA Method 314.0
	PVA1396-01	1/23/2012	N	Perchlorate by EPA Method 332.0
8 W. Yearling	PVA1409-01	1/23/2012	N	Perchlorate by EPA Method 314.0
	PVA1410-01	1/23/2012	N	Perchlorate by EPA Method 332.0
412 E. Yearling	PVA1575-01	1/25/2012	N	Perchlorate by EPA Method 314.0
	PVA1549-01	1/25/2012	N	Perchlorate by EPA Method 332.0
25825 N. 1st Place	PVA1403-01	1/23/2012	N	Perchlorate by EPA Method 314.0
	PVA1404-01	1/23/2012	N	Perchlorate by EPA Method 332.0

Notes:
N = Normal sample

Table J-6

Completeness Summary - First Quarter 2012
Private Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Parameters	Total Number of Samples	Number in Contractual Compliance	Percent Contractual Compliance	Number of Usable Results	Percent Technical Compliance
Inorganics					
Perchlorate (Method 314.0)	11	11	100	11	100
Perchlorate (Method 332.0)	11	11	100	11	100
TOTALS	**22**	**22**	**100**	**22**	**100**

Notes:
Percent Contractual Compliance = (Number of contract compliant results/Number of reported results) * 100
Percent Technical Compliance = (Number of usable results/Number of reported results) * 100
RPD = relative percent difference

Table J-7

Sampling and Analysis Schedule - Second Quarter 2012
UPCO Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Sample ID	Lab ID	Collected	Sample Type	Parameters
MW-1	PVE0992-01	5/9/2012	N	Perchlorate
PW-1	PVE0992-02	5/9/2012	N	Perchlorate
MW-6	PVE0992-03	5/10/2012	N	Perchlorate
MW-21	PVE0992-04	5/10/2012	N	Perchlorate
MW-13	PVE0992-05	5/10/2012	N	Perchlorate
MW-5	PVE0992-06	5/10/2012	N	Perchlorate
MW-20	PVE0992-07	5/11/2012	N	Perchlorate
	PVE0992-09	5/11/2012	N	VOCs
	PVE0992-10	5/11/2012	N	1,4-Dioxane
FD051112	PVE0992-08	5/11/2012	FD	Perchlorate
	PVE0992-11	5/11/2012	FD	VOCs
	PVE0992-12	5/11/2012	FD	1,4-Dioxane
MW-19	PVE0992-13	5/11/2012	N	Perchlorate
Trip Blanks	PVE0992-14	5/11/2012	TB	VOCs, 1,4-Dioxane
MW-2	PVE0992-15	5/10/2012	N	Perchlorate

Notes:

N = normal field sample

FD = field duplicate

TB = trip blank

VOCs = volatile organic compounds by EPA Method 8260B

Perchlorate = EPA method 314.0

Table J-8

Field Duplicate Summary - Second Quarter 2012
UPCO Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Sample ID / Field Duplicate ID	Parameters	Sample Result	Field Duplicate	RPD (%)
MW-20/ FD051112	**VOCs (ug/l)**			
	1,1-Dichloroethene	0.60	0.51	16
	1,4-Dioxane	14	13	2.4
	All other analytes	ND	ND	NC
	Inorganics (ug/l)			
	Perchlorate (ug/l)	410	420	7.4

Notes:
RPD = Relative percent difference; [(difference)/(average)]*100
ND = No analytes detected
NC = Not calculated
Field duplicate RPD acceptance limits is 25 percent for results greater than 5 times the reporting limit; for res less than 5 times the reporting limit, the difference between sample and field duplicate results should be less than the reporting limit

Table J-9

Completeness Summary - Second Quarter 2012
UPCO Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Parameters	Total Number of Samples	Number in Contractual Compliance	Percent Contractual Compliance	Number of Usable Results	Percent Technical Compliance
Inorganics					
Perchlorate (Method 314.0)	9	9	100	9	100
Organics					
VOCs	66	66	100	66	100
1,4-Dioxane	1	1	100	1	100
TOTAL	**76**	**76**	**100**	**76**	**100**

Notes:
Number of samples used in completeness calculations includes field samples, but not field duplicates or blanks
Percent Contractual Compliance = (Number of contract compliant results/Number of reported results) * 100
Percent Technical Compliance = (Number of usable results/Number of reported results) * 100

Table J-10

Sampling and Analysis Schedule - Second Quarter 2012
Soil Vapor Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Sample ID	Lab ID	Collected	Sample Type	Parameters
FD053012	PVE2040-01	5/30/2012	FD of SVMW-1-90-100	VOCs
SVMW-1-30-40	PVE2040-02	5/30/2012	N	VOCs
SVMW-1-90-100	PVE2040-03	5/30/2012	N	VOCs
SVMW-1-140-150	PVE2040-04	5/30/2012	N	VOCs
SVMW-1-190-200	PVE2040-05	5/30/2012	N	VOCs

Notes:
FD = Field duplicate
N = Normal sample
VOCs = volatile organic compounds, analyzed by EPA Method TO-15

Table J-11

Qualified Results - Second Quarter 2012
Soil Vapor Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Sample ID	Analyte	Result	Units	Data Qualifier	Comments
SVMW-1-30-40	Acetone	500	ppbv	J	Qualified due to common laboratory contaminant
SVMW-1-30-40	2-Butanone	170	ppbv	J	Qualified due to common laboratory contaminant
SVMW-1-90-100	1,1-Dichloroethene	420	ppbv	J	Qualified due to high field duplicate RPD
SVMW-1-90-100	Acetone	360	ppbv	J	Qualified due to common laboratory contaminant and high field duplicate RPD
SVMW-1-90-100	2-Butanone	120	ppbv	J	Qualified due to common laboratory contaminant
SVMW-1-90-100	Propene	160	ppbv	J	Qualified due to high field duplicate RPD
SVMW-1-140-150	Acetone	1300	ppbv	J	Qualified due to common laboratory contaminant
SVMW-1-190-200	Acetone	4300	ppbv	J	Qualified due to common laboratory contaminant

Notes:
ppbv = parts per billion by volume
J = estimated result

Table J-12

Field Duplicate Summary - Second Quarter 2012
Soil Vapor Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Sample ID / Field Duplicate ID	Parameters	Sample Result	Field Duplicate	RPD (%)
SVMW-1-90-100/ FD053012	**VOCs (ppbv)**			
	1,1-Dichloroethene	420	180	**89**
	2-Butanone (MEK)	120	99	21
	2-Hexanone	<9.9	9.0	NC
	Acetone	360	260	**50**
	Benzene	<9.9	1.0	NC
	Heptane	<9.9	1.4	NC
	Hexane	<9.9	2.9	NC
	Propene	160	<1.0	**NC**
	Tetrachloroethene	29	23	24
	Tetrahydrofuran	<20	4.8	NC
	Toluene	<9.9	1.5	NC
	Trichloroethene	<9.9	2.4	NC
	All other analytes	ND	ND	NC

Notes:
Bolded results required data qulification.
RPD = Relative percent difference; [(difference)/(average)]*100
ND = No analytes detected
NC = Not calculated
Field duplicate RPD acceptance limits is 25 percent for results greater than 5 times the reporting limit; for res less than 5 times the reporting limit, the difference between sample and field duplicate results should be less than the reporting limit

Table J-13

Completeness Summary - Second Quarter 2012
Soil Vapor Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Parameters	Total Number of Samples	Number in Contractual Compliance	Percent Contractual Compliance	Number of Usable Results	Percent Technical Compliance
Volatile Organic Compounds by EPA Method TO-15					
Acetone	4	0[a,b]	0	4	100
2-Butanone	4	2[a]	50	4	100
1,1-Dichloroethene	4	3[b]	75	4	100
Propene	4	3[b]	75	4	100
All other analytes	268	268	100	268	100
TOTAL	**284**	**276**	**97**	**284**	**100**

Notes:
a = Qualified due to common laboratory contaminant
b = Qualified due to high field duplicate RPD
Percent Contractual Compliance = (Number of contract compliant results/Number of reported results) * 100
Percent Technical Compliance = (Number of usable results/Number of reported results) * 100

Table J-14

Sampling and Analysis Schedule - Third Quarter 2012
UPCO Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Sample ID	Lab ID	Collected	Sample Type	Parameters
MW-7	PVH0982-01	8/7/2012	N	perchlorate
MW-18	PVH0982-02	8/8/2012	N	perchlorate, total metals
MW-8	PVH0982-03	8/8/2012	N	perchlorate, total metals
MW-10	PVH0982-04	8/8/2012	N	perchlorate
MW-3	PVH0982-05	8/8/2012	N	perchlorate
MW-4	PVH0982-06	8/8/2012	N	perchlorate
MW-15	PVH0982-07	8/9/2012	N	perchlorate
MW-9	PVH0982-08	8/9/2012	N	perchlorate
MW-14	PVH0982-09	8/10/2012	N	perchlorate
MW-17	PVH0982-10	8/10/2012	N	perchlorate
MW-16	PVH0982-11	8/10/2012	N	perchlorate
FD080812	PVH0982-12	8/8/2012	FD of MW-8	perchlorate, total metals
MW-12	PVH1562-01	8/13/2012	N	perchlorate
MW-11	PVH1562-02	8/13/2012	N	perchlorate
PW-1	PVH1562-03	8/16/2012	N	perchlorate
	PVH1562-13	8/16/2012	N	VOCs
MW-21	PVH1562-04	8/16/2012	N	perchlorate
MW-13	PVH1562-05	8/17/2012	N	perchlorate
MW-5	PVH1562-06	8/19/2012	N	perchlorate
MW-1	PVH1562-07	8/19/2012	N	perchlorate
	PVH1562-14	8/19/2012	N	VOCs, 1,4-dioxane
SD081912	PVH1562-08	8/19/2012	FD of MW-1	perchlorate
	PVH1562-15	8/19/2012	FD of MW-1	VOCs, 1,4-dioxane
MW-2	PVH1562-09	8/19/2012	N	perchlorate
	PVH1562-16	8/19/2012	N	VOCs, 1,4-dioxane
MW-20	PVH1562-10	8/19/2012	N	perchlorate
MW-19	PVH1562-11	8/19/2012	N	perchlorate
MW-6	PVH1562-12	8/19/2012	N	perchlorate
TB082012-1	PVH1562-17	8/16/2012	TB	1,4-dioxane
TB082012-2	PVH1562-18	8/16/2012	TB	VOCs

Notes:

N = normal field sample

FD = field duplicate

TB = trip blank

VOCs = volatile organic compounds by EPA Method 8260B

Total metals = arsenic, barium, cadmium, chromium, iron, lead, magnesium, manganese, mercury, selenium, and silver

Perchlorate = EPA method 314.0

Samples MW-3, MW-4, MW-7, MW-8, MW-11, MW-12, MW-15, MW-16, MW-17, and MW-18 were also analyzed by EPA Method 332.0

Table J-15

Qualified Results - Third Quarter 2012
UPCO Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Sample ID	Analyte	Result	Units	Data Qualifier	Comments
MW-3	Perchlorate (EPA 314.0)	<2.0	µg/L	UJ	Qualified due to lab duplicate RPD exceedance
MW-4	Perchlorate (EPA 314.0)	<2.0	µg/L	UJ	Qualified due to lab duplicate RPD exceedance
	Perchlorate (EPA 332.0)	0.84	µg/L	J	Qualified due to MS/MSD recoveries
MW-7	Perchlorate (EPA 314.0)	<2.0	µg/L	UJ	Qualified due to lab duplicate RPD exceedance
	Perchlorate EPA 332.0	0.66	µg/L	J	Qualified due to MS/MSD recoveries
MW-8	Iron	0.61	mg/L	J	Qualified due to field duplicate RPD exceedance
	Perchlorate (EPA 314.0)	<2.0	µg/L	UJ	Qualified due to lab duplicate RPD exceedance
	Perchlorate (EPA 332.0)	1.2	µg/L	J	Qualified due to MS/MSD recoveries
MW-9	Perchlorate (EPA 314.0)	2.1	µg/L	J	Qualified due to lab duplicate RPD exceedance
MW-10	Perchlorate (EPA 314.0)	2.5	µg/L	J	Qualified due to lab duplicate RPD exceedance
MW-14	Perchlorate (EPA 314.0)	2.4	µg/L	J	Qualified due to lab duplicate RPD exceedance
MW-15	Perchlorate (EPA 314.0)	<2.0	µg/L	UJ	Qualified due to lab duplicate RPD exceedance
MW-16	Perchlorate (EPA 314.0)	<2.0	µg/L	UJ	Qualified due to lab duplicate RPD exceedance
MW-17	Perchlorate (EPA 314.0)	<2.0	µg/L	UJ	Qualified due to lab duplicate RPD exceedance
MW-18	Perchlorate (EPA 314.0)	<2.0	µg/L	UJ	Qualified due to lab duplicate RPD exceedance

Notes:
µg/l = microgram per liter
mg/l = milligram per liter
J = estimated result
UJ = estimated detection limit
MS/MSD = matrix spike/matrix spike duplicate samples

Table J-16

Field Duplicate Summary - Third Quarter 2012
UPCO Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Sample ID / Field Duplicate ID	Parameters	Sample Result	Field Duplicate	RPD (%)
MW-8/FD080812	**Total Metals**			
	Arsenic	0.043	0.043	<1.0
	Barium	0.0088	0.0097	9.7
	Chromium	0.02	0.02	<1.0
	Iron	0.61	0.95	**44**
	Lead	0.0017	0.0012	34
	Manganese	0.013	0.014	7.4
	All other analytes	ND	ND	NC
	Inorganics			
	Perchlorate 314	ND	3.3	NC
	Perchlorate 332	1.2	NA	NC
MW-1/SD081912	**VOCs**			
	All analytes	ND	ND	NC
	Inorganics			
	Perchlorate (EPA 314.0)	81	69	16

Notes:
RPD = Relative percent difference; [(difference)/(average)]*100
ND = No analytes detected
NA = Not analyzed
NC = Not calculated
Field duplicate RPD acceptance limits is 25 percent for results greater than 5 times the reporting limit; for results less than 5 times the reporting limit, the difference between sample and field duplicate results should be less than the reporting limit
VOCs = volatile organic compounds

Table J-17

Completeness Summary - Third Quarter 2012
UPCO Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Parameters	Total Number of Samples	Number in Contractual Compliance	Percent Contractual Compliance	Number of Usable Results	Percent Technical Compliance
Total Metals					
Arsenic	3	3	100	3	100
Barium	3	3	100	3	100
Cadmium	3	3	100	3	100
Chromium	3	3	100	3	100
Iron	3	2[a]	67	3	100
Lead	3	3	100	3	100
Magnesium	3	3	100	3	100
Manganese	3	3	100	3	100
Mercury	3	3	100	3	100
Selenium	3	3	100	3	100
Silver	3	3	100	3	100
Inorganics					
Perchlorate (Method 314.0)	22	11[b]	50	22	100
Perchlorate (Method 332.0)	10	3[c]	30	10	100
Organics					
VOCs	198	198	100	198	100
1,4-Dioxane	3	3	100	3	100
TOTAL	**266**	**231**	**87**	**266**	**100**

Notes:
[a] Qualified due to field duplicate RPD exceedance
[b] Qualified due to lab duplicate RPD exceedance
[c] Qualified due to MS/MSD recoveries
Number of samples used in completeness calculations includes field samples, but not field duplicates or blanks.
Percent Contractual Compliance = (Number of contract compliant results/Number of reported results) * 100
Percent Technical Compliance = (Number of usable results/Number of reported results) * 100
MS/MSD = matrix spike/matrix spike duplicate samples
RPD = relative percent difference
VOCs = volatile organic compounds

Table J-18

Sampling and Analysis Schedule - Third Quarter 2012
Private Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Sample ID	Lab ID	Collected	Sample Type	Parameters
16 E. Yearling	PVH1030	8/13/2012	N	Perchlorate by EPA Method 314.0
	PVH1020	8/13/2012	N	Perchlorate by EPA Method 332.0
18 E. Yearling	PVH1032	8/13/2012	N	Perchlorate by EPA Method 314.0
	PVH1021	8/13/2012	N	Perchlorate by EPA Method 332.0
204 E. Yearling	PVH1033	8/13/2012	N	Perchlorate by EPA Method 314.0
	PVH1022	8/13/2012	N	Perchlorate by EPA Method 332.0
218 E. Yearling	PVH1027	8/13/2012	N	Perchlorate by EPA Method 314.0
	PVH1026	8/13/2012	N	Perchlorate by EPA Method 332.0
520 E. Yearling	PVH1036	8/13/2012	N	Perchlorate by EPA Method 314.0
	PVH1025	8/13/2012	N	Perchlorate by EPA Method 332.0
604 E. Yearling	PVH1035	8/13/2012	N	Perchlorate by EPA Method 314.0
	PVH1024	8/13/2012	N	Perchlorate by EPA Method 332.0
8 W. Yearling	PVH1034	8/13/2012	N	Perchlorate by EPA Method 314.0
	PVH1023	8/13/2012	N	Perchlorate by EPA Method 332.0
25825 N. 1st Place	PVH1028	8/13/2012	N	Perchlorate by EPA Method 314.0
	PVH1019	8/13/2012	N	Perchlorate by EPA Method 332.0

Notes:

N = Normal sample

Table J-19

Completeness Summary - Third Quarter 2012
Private Wells

UTC Aerospace Systems
Former UPCO Facility
Phoenix, Arizona

Parameters	Total Number of Samples	Number in Contractual Compliance	Percent Contractual Compliance	Number of Usable Results	Percent Technical Compliance
Inorganics					
Perchlorate (Method 314.0)	8	7	88	8	100
Perchlorate (Method 332.0)	8	8	100	8	100
TOTALS	**16**	**15**	**94**	**16**	**100**

Notes:
Percent Contractual Compliance = (Number of contract compliant results/Number of reported results) * 100
Percent Technical Compliance = (Number of usable results/Number of reported results) * 100

ARCADIS

Appendix K

2012 Laboratory Reports (located on CD on back cover)